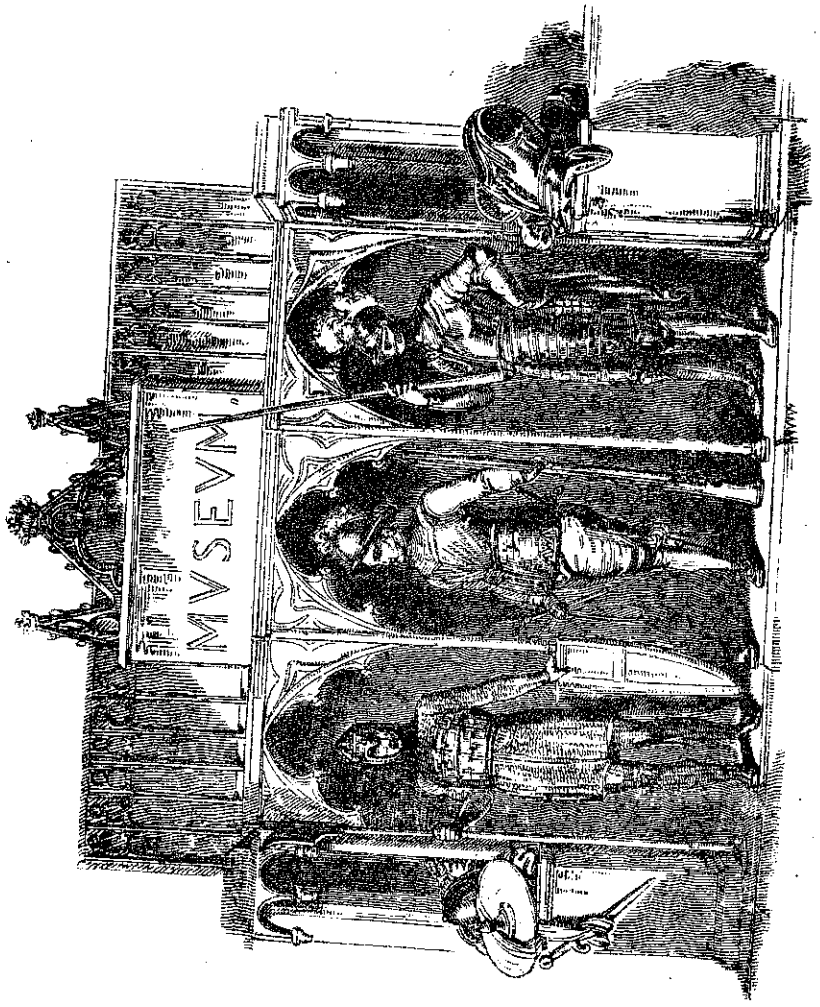

PUBLIC MUSEUMS

A

COMPANION

TO THE

LIVERPOOL MUSEUM,

CONTAINING

A brief Defcription of upwards of Four Thoufand of its

NATURAL AND FOREIGN CURIOSITIES,

ANTIQUITIES,

AND

PRODUCTIONS of the FINE ARTS,

Open for Public Inspection, in Five Apartments, built and fitted up for the Purpose,

AT THE HOUSE OF

WILLIAM BULLOCK,

Jeweller and Silversmith to his Royal Highness the Duke of Gloucester,

CHURCH-STREET, LIVERPOOL.

O Nature! how in every charm supreme!
Whose vot'ries feast on raptures ever new,
O! for the voice and fire of Seraphim,
To sing thy glories with devotion due!

BEATTIE.

THE SEVENTH EDITION.

PRINTED FOR THE PROPRIETOR,

BY

RICHARD CRUTTWELL, ST. JAMES'S-STREET, BATH.

1809.

THE full Value given for rare and uncommon Quadrupeds, Birds, Fiſhes, Reptiles, Shells, old Paintings, Carvings on Wood or Ivory, Stained Glaſs, ancient and foreign Arms and Armour, or any uncommon Production of Art or Nature.

NAMES

OF THE

LADIES AND GENTLEMEN

WHO HAVE PRESENTED CURIOSITIES TO THE

LIVERPOOL MUSEUM.

RESIDENTS OF LIVERPOOL.

ADLINGTON (late) George
Angus Charles, eſq;
Aſhton N. eſq;
Aſtley Henry
Aſtley Thomas
Atherton Edward, eſq;
Backhouſe J. eſq;
Barr Captain
Barrow Captain
Bennock J.
Blundell Bryan, eſq;
Bolton John, eſq;
Bolton Mrs.
Bowdon Joſhua, eſq;
Brennard Captain
Brettargh William
Bullock George
Buſhell Captain
Caldwell Charles, eſq;
Campbell Captain
Clarke Captain
Cliff Adam
Coltman Dr.
Currie Mrs.
Dickſon William, eſq;
Directors of the Blue Coat School
Farrer (late) John
Fiſher Lieut. R. N.
Forbes William
Harper William, eſq;
Haworth (late) George
Haycock Mr.
Holmes Captain
James Nathaniel
Johnſon Robert
Kirkman Robert
Koſter J. T. eſq;
Laurence Charles, eſq;
Loundes Mr.
Lowe J.
Moore Henry Glover, eſq;
Mouſden, Mr.
Murray J.
Neilſon William, eſq;
Parry Henry, eſq,
Pearſon Captain
Pennington Mr.
Pettigrew Captain
Powell Captain
Preſton Robert
Rimmer Mr.
Roach Captain
Roberts Captain
Roſcoe William, eſq;
Sandbach Mr.
Schofield T.
Slater William
Smith R.
Smyth Rev. John
Staniforth (late) Thomas, eſq;
Staniforth Samuel, eſq;
Touhy Miſs
Turmeau John
Ward Robert, eſq;
Wood Miſs
Wright Captain

NON-RESIDENTS IN LIVERPOOL.

ALDERSON Dr. *Hull*
Allan Thomas, esq; *Edinburgh*
Ash Thomas, esq;
Barclay Dr. - - - - *Edinburgh*
Barret Mr. - - - - *Birmingham*
Batterſby Miſs - - *Dublin*
Birchall, S. esq; - - *Leeds*
Biſſet James, - - - *Birmingham*
Blackburn J. esq; -
Blundell Henry, esq; *Ince-Hall*
Bootle Wilb. esq; - *Lathom-Houſe*
Boulter J. - - - - - *Yarmouth*
Brettargh J. - - - - *Trafford-Hall*
Broadbent Mr. - - *Hull*
Brogden H. esq; F.L.S. *Clapham*
Brown Mr. - - - - *Birmingham*
Brown Mr. - - - - *Norwich*
Bruce Miſs - - - - *Demerara*
Bullock J. - - - - *Surinam*
Burns A. esq; - - - *Glaſgow*
Chappel Rev. Mr. *Coventry*
Clarke Rev. Dr. - - *London*
Clarke Henry, esq; *Middlewich*
Crowdroy Wm. - *Mancheſter*
Dadford Tho. esq; *Wolverhampton*
Darling Dr. - - - *Hull*
Dartmouth Counteſs of
Dublin Royal Society of
Edwards Rev. Mr. *Lynn*
Egglington Mr. - *Birmingham*
Fryer Dr. - - - - *Raſtrick*
Gaſcoyne Mrs. I. *Childwall-Hall*
Geddes J. esq; - - *Glaſgow*
Goodings Mr. - - *Sheffield*
Graham Col. - - - *Glaſgow*
Green (late) Mr. - *Litchfield*
Green J. - - - - - *Birmingham*
Gurney (late) B. esq; *Norwich*
Hardy James, esq; *Glaſgow*
Harriſon A. F.L.S. *Weſtminſter*
Hippiſley Lady Cox
Howell Thomas - *Coventry*
Jackſon J. esq; - - *London*
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James Captain - - *Hull*
Kemble Rev. Mr. *Birmingham*
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Langton Mr. - - - *Cheſterfield*
Leger Hon. Col. St. *Dublin*
Leiceſter Sir John, bart.
M'Dougal Dr. - - *Glaſgow*
M'Nally L. esq; - *Dublin*
Madden ——, esq; *Dublin*
Mars Captain - - - *America*
Miller Captain - - *Hull*
Munro Dr. - - - - *Edinburgh*
Munro Miſs - - - *Edinburgh*
Niel Patrick, esq; - *Edinburgh*
Nixon Mr. - - - - *Coventry*
Phillips Leigh, esq; *Mancheſter*
Pollock Mrs. - - - *Dublin*
Polito S.
Puleſton Col. Emral *Wrexham*
Robinſon J. esq; - - *Stamford*
Salt Jonathan - - - *Sheffield*
Scott Corſe, esq; - *Edinburgh*
Sharp Thomas - - *Coventry*
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Smith Mr. - - - - *Glaſgow*
Smith J. E. Dr. P.L.S.
Smith William, esq; *Dublin*
Somerſcales Mr. - *Hull*
Stanley Lord - - - *Knowſley*
Stanley Col. M.P.
Steel Mrs. - - - - *Angleſea*
Stephenſon W. esq; *Norwich*
Stuart Captain - - *Edinburgh*
Townſend Rev. J. *Bath*
Trafford John, esq; *Trafford-Houſe*
Turner William *Llangollen*
Unit Mr. - - - - - *Birmingham*
Walker Peter, esq; *Edinburgh*
Wallis Mr. - - - - *Hull*
Wallis George - - *Hull*
Ward R. esq; - - *Sheffield*
Wilkinſon J. esq; *Bath*
Wilſon Mr. - - - *Leeds*
Wilſon Mr. - - - - *Glaſgow*
Wilſon Mr. - - *College, Edinburgh*
Wright Dr. Peter *Glaſgow*
Wright Richard - *Lichfield*
Young Dr. - - - - *Sheffield*

PREFACE.

ACTUATED by the repeated ſolicitations of his friends and reſpectable viſiters for a Guide to the Liverpool Muſeum, the Proprietor preſumes that no apology is neceſſary for introducing to their notice this ſeventh and improved deſcription of his Cabinet. In the former edition, a general objection having been made againſt the Linnæan claſſification, not permitting the viſiters to apply with ſatisfaction to the ſpecimen they wiſhed to examine, the evil complained of, it is hoped, has been in ſome degree removed, by arranging the whole of the objects in a different manner; with a reference from the ſubject under examination, to the page expreſſed in the treatiſe.—Thoſe then, who "*look through Nature up to Nature's God;*" or, to ſpeak leſs metaphorically, can derive knowledge and entertainment from a contemplation of the works of a *Supreme Power;* of the productions of the untutored Indian, as well as thoſe ingenious pieces of art of the more enlightened part of mankind; will find in the preſent publication a more faithful

companion to the multiplicity of curiosities assembled and preserved in this collection, than in those hitherto published; and at the same time will have in private a pleasing resource to assist them in explaining to the circle of their friends the gratification they have received; for, next to the enjoyment of beholding what is strange or beautiful, is the desire of recounting the wonders we have seen. In an introductory preface of this description, it is too often the custom to lavish a profusion of encomiums on the subjects presented to the inspection of the public; such conduct has not yet been practised, nor ever will be followed. The credit on which the Museum at present stands throughout the Imperial dominions, is sufficient to make every pompous declaration unnecessary. The Proprietor intends to make his Museum an *increasing depôt* of every thing rare and curious in the three grand kingdoms of Nature, combining also the works of art and antiquity. To this intent, he therefore begs the assistance of those ladies and gentlemen whose taste and studies are congenial with such pursuits; humbly hoping, that his endeavours will invariably be found not unworthy the honour he solicits. With respect to the literary department of this work, but a few words are deemed sufficient; the articles of Natural History have been carefully compiled from those authors, who have given the most authentic and pleasing relation of the article; whilst in the descriptions of the artificial curiosities,

all that has been aimed at is an accurate delineation of the subject, described in simple and intelligent language. If this Treatise then, under all its imperfections, should afford one hour of entertainment, or assist the researches of those patrons and friends who have so liberally countenanced its Proprietor since the establishment of his Collection, his hopes are in some degree exceeded, and his wishes accomplished.

LIVERPOOL MUSEUM,
July 10, 1809.

A

COMPANION

TO THE

LIVERPOOL MUSEUM.

SOUTH-SEA CURIOSITIES.

WE ſhall firſt direct the notice of the viſitors of this Muſeum to the Curioſities brought from the South-Seas, by Captain Cook.

Sandwich Islands.—Case No. 1.*

Letter A.—A ſuperb CLOAK, made of the black feathers of the Powhee bird, ornamented with a broad checquered border of red and yellow. This Cloak is ſo long as to touch the feet of the wearer, and is conſidered of the greateſt value. It is worn by none except the Chiefs, and by them only on particular occaſions; as they never appeared in them but three times during Captain Cook's ſtay at Owhyhee, viz. at the proceſſion of the King and his people to the ſhips, on their firſt arrival; in the tumult when the unfortunate commander fell a victim to their fury and miſtaken reſentment; and when two of the Chiefs brought *his bones* to Captain Clarke.

B.—Red feathered CLOAK, decorated with yellow, from ditto. The ground of theſe elegant and ſingularly beautiful Cloaks is network wrought by the hand, upon which the feathers are ſo cloſely fixed, that the ſurface reſembles the thickeſt and richeſt velvet, both in delicate ſoftneſs and gloſſy appearance.

C.—A HELMET, compoſed of wicker-work, covered with red feathers.

D.—Another HELMET of a different conſtruction, covered with black feathers. Theſe Helmets, with the Dreſſes, form the principal riches of the Chiefs of the South-Sea Iſlands.

E.—A large HAT, made of red, yellow, and black feathers; remarkable for its reſemblance in form to thoſe of Europe.

* Several of the articles in this Caſe were once the property of the celebrated Captain Cook.

F.—Two Neck Ornaments, made of different coloured feathers, from the Sandwich Iſlands.

G.—A Breast-Plate, or Gorget, from the Sandwich Iſlands, made of wicker, covered with feathers, and ornamented with rows of ſhark's teeth.

H.—Small Pagol, or Idol, of black wood, from ditto.

I.—War Club, from the Friendly Iſlands. This Club, which belonged to a Chief of Owhyhee, is armed with a very hard, ſharp, poliſhed ſtone, which makes it ſomewhat like a Battle-axe; the other end is pointed for the purpoſe of a Pahoo or Dagger.

K.—A Basket, from the Friendly Iſlands. That the untutored Indians of the South-Seas exceed the artiſts of every civilized nation in this kind of work, the above baſket is a proof, for it is of ſo cloſe a texture, as to hold any liquid. It was uſed by the gentleman (who brought it from the South-Seas, and preſented it to this Muſeum) as a punch-bowl.

L.—Fish-Hook, from the Sandwich Iſlands.

M.—A Necklace, made of the teeth of the Peccary.

N.—Head Ornament, made of Mother of Pearl and tortoiſe ſhell.

O.—A beautiful Fly-Flap, purchaſed at the ſale of the late Leverian Muſeum. In the firſt part of the Reference Catalogue to this once celebrated repoſitory of curioſities, an account is given in a note of the manner in which it came into the poſſeſſion of Mr. Samwell, the late ſurgeon of the ſhip Diſcovery, who publiſhed a Narrative of the Death of Capt. Cook, informs us, he brought this Fly-Flap home with him, of which he gives the following account:—"The "Natives of the Sandwich Iſlands always endeavour to carry off "the dead bodies of their ſlain friends in battle, even at the "hazard of their own lives. This cuſtom is probably owing to the "barbarity with which they treat the body of an enemy, and the "trophies they make of his bones; a remarkable inſtance of which "I met with at Atowai. Tomataherei, the Queen of that iſland, "one day paid us a viſit on board the Diſcovery, accompanied by "her huſband Taeoh, and one of her daughters by a former hus-"band, whoſe name was Oteeha. The young Princeſs, who was "called Orereemo horanee, carried in her hand a very elegant "Fly-Flap, of a curious conſtruction. The upper part of it was "variegated with alternate rings of tortoiſe-ſhell and human bone, "and the handle, which was poliſhed, conſiſted of the greater part of "the Os Humeri (bone of the upper arm) of a Chief, called Ma-"howra; he had belonged to the neighbouring iſland of Oahoo, and "in an hoſtile deſcent he made upon this coaſt, had been killed by "Oteeha, who was then King of Otowai. His bones were in this "manner carried about by Orereemo-horanee, as trophies of her "father's victory. The mother and daughter ſet a great value upon "it, and were not willing to part with it for any of our iron; but "Tomataherei happening to caſt her eye upon a waſh-hand baſon of

"mine, which was of Queen's ware, it ſtruck her fancy, and ſhe "offered to exchange. I accepted of her propoſal, and the bones of "the unfortunate Mahowa came at laſt into my poſſeſſion."

P.—An Under-Garment made of the Bark of the Touta or Cloth-tree, curiouſly decorated, from the Sandwich Iſlands; preſented by the Rev. Dr. Clarke.

Q. and R. Two Caps from Africa; one made of graſs, which for fineneſs of workmanſhip and regularity of pattern, exceeds any thing of the kind of European manufacture. What muſt appear wonderful in this work of art is, that it is knit with wooden ſticks after the manner of ſtockings.

The one marked R. was preſented by Captain Campbell, and is made of the fibres of bark.

A Rattle, made of the ſhells of hard nuts, which on being ſhaken produces a noiſe, that may be heard to a conſiderable diſtance.

Tabooing Rods, or Wands. One of them is made of a beautiful cloſe-grained red wood, and is pointed; on the other is the head of the Eatooa, or God, finely carved. Theſe wands are carried by the prieſts, and ſometimes by another perſon particularly appointed to that office, who is called Tonata, (or the Taboo Man.) They are made uſe of on various occaſions, both public and private, and any thing touched by them is conſidered as prohibited or forbidden. The word Taboo, is uſed emphatically to denote any thing ſacred, eminent, or devoted. When a particular ſpace of ground is *tabooed*, ſeveral of theſe roods or wands tufted, with dog's hair, are fixed up, and until they are removed no perſon will preſume to tread on that ground.

Different kinds of long War Clubs uſed in the Friendly Iſlands. Theſe are made of wood equal in hardneſs to the Brazilian, and ſuperior in beauty to mahogany; and when it is remembered that iron and ſteel are wholly unknown to theſe people, few ſpecimens, for laborious and ſkilful workmanſhip, can vie with them. The carving, though executed with no other inſtrument than a ſhell, a ſhark's tooth, or a flint, by dint of induſtry and ingenuity, is perfectly uniform in pattern, and highly ornamental.

Paddle, or Oar, with which the natives of the Friendly Iſlands row their canoes. It is about five feet long, and is ſix inches acroſs the wideſt part, and yet is ſo light as to weigh little more than a pound.

A Fish Gig, or Spear, of New Zealand, ſix feet long, made of exceedingly light wood, armed at the bottom with two pieces of barbed ivory, or the bone of ſome ſea animal, a foot long. About the middle of the ſpear three other ſharp pieces of ivory project in a triangular form in ſuch a manner, that if they miſs the fiſh with the firſt part, they generally catch it upon the points of the ſecond. The New Zealanders frequently uſe theſe gigs in their battles.

A Bow, from the Friendly Iſlands.

Various kinds of ſhort HAND CLUBS, or PATTAPATTOOS, of different forms and materials. They are worn by the natives of the South-Seas, in the ſame manner as daggers are worn by the Aſiatics, and are uſually made of hard wood, bone, or green baſaltes.

A KNIFE, from the Friendly Iſlands, made of wood, edged with ſhark's teeth, uſed by the natives of thoſe iſlands for cutting up their enemies taken in battle.

BASKET, from New Zealand.

A DRESS, worn by the Natives of Prince William's Sound, principally made of ſeal ſkins, with the hairy ſide outwards. It is a a kind of jacket, nearly reſembling a carter's frock, with a hood to it, that fits tight round the face, which is the only part of the body that is ſeen; the ſkirts of the frock reach nearly to the knee, and under it are worn a kind of drawers, made of the ſame materials as the above: the legs are covered with ſtockings made of ſkin with very thick hair on, and over theſe are drawn a pair of curious boots, made of the ſkin of ſome ſea animal. The whole of this dreſs is well calculated for the cold climate where it is worn. The ſewing is performed with ſmall ſharp fiſh-bones, and the ſinews of the whale ſplit into thin fibres for thread; yet we believe that few European tailors could exceed either the neatneſs or ſtrength of the work.

AXES, or ADZES, made of very hard black ſtone, nearly reſembling the baſaltes. Theſe hatchets are wrought in a regular form with much labour, by rubbing one ſtone againſt another; with theſe the natives cut the wood for their canoes, war-clubs, and houſehold utenſils; the heads of theſe axes are firmly faſtened to the handles with ſtrong cords, made of the fibres of the cocoa nut twiſted together.

A large FISH HOOK, for taking the ſhark; it is one foot long and ſix inches broad, and is made of a crooked piece of wood, pointed at the end with a ſubſtance reſembling horn.

Glass Case, A.

A pair of ponderous EAR-RINGS made of white ſhells, from Chriſtian's Iſland.

A NECKLACE of HUMAN BONE, from New Zealand.

Beautiful FEATHER NECKLACES, from the South-Seas.

Part of the Chief Mourner's DRESS uſed at the funerals of Owhyhee; compoſed of ſmall ſlips of Mother of Pearl, very ingeniouſly put together.

KNEE ORNAMENT, worn by the dancers of New Zealand. The ground work is a ſtrong cloſe netting, on which are faſtened ſeveral hundred ſmall ſhells, which, when put in motion, produce a rattling ſound, to the muſic of which the dancers keep time.

In this caſe is alſo a variety of the FISHING-TACKLE of the Sandwich and Friendly Iſlands. The hooks are made of Mother of Pearl, bone, or wood, pointed or barbed with ſmall bones or tortoiſe-ſhell.

They are of various ſizes and forms; that marked A is the moſt common; it is between two and three inches long, and made in the ſhape of a fiſh, which ſerves as a bait. B is of tortoiſe-ſhell.

The lines are made of different degrees of ſtrength and fineneſs. That marked C is the fineſt kind, and is of human hair platted together, and is uſed chiefly for things of ornament. D is a ſpecimen of the common kind, made of the bark of the cloth tree, neatly and evenly twiſted in the ſame manner as our common twine. E is a ſofter kind, made of the bark of a ſmall ſhrub, called AREEMAH, platted together, and is flat. That marked F is of great ſtrength, being made of the platted ſinews of ſome ſea animal.

They likewiſe make another ſort of cordage, which is flat and very ſtrong, and uſed principally in laſhing the roofs of their houſes, or whatever they wiſh to faſten together; it is made of the fibrous ſtrings of the cocoa-nut huſk, in the ſame manner as our ſailors make their points for the reefing of ſails. That on the ſhark hook is of this kind. Conſidering the materials of which theſe hooks and lines are formed, their ſtrength and neatneſs are really aſtoniſhing; "and in fact (ſays Capt. Cook) we found them upon trial far ſupe-"rior to our own."

The COMBS marked G are from Otaheite, and are ſpecimens of their exquiſite wicker-work.

A quantity of FISHING-LINES, made from human hair, brought from the South-Seas.

A NET MESH from the South-Seas.

A SHOE of a Chineſe Lady.

A SHOE of Count Borulaſki, the Poliſh Dwarf.

A TATTOWING INSTRUMENT, from the Sandwich Iſlands. Capt. King, in his continuation of Capt. Cook's third voyage, vol. 3, page 135, obſerves, "That the Sandwich Iſlanders have the cuſtom "of tattowing the body in common with the reſt of the natives of "the South-Sea Iſlands. The arms and hands of the women are "alſo very neatly marked, and they have a ſingular cuſtom among "them, the meaning of which (Capt. King ſays) we could never "learn, that of tattowing the tips of the tongues of the females. "From ſome information we received relative to the cuſtom of tat-"towing, we were inclined to think it is frequently intended as a "ſign of mourning on the death of a chief, or any other calamitous "event; for we were often told, that ſuch a particular mark was in "memory of ſuch a chief, and ſo of the reſt. It may be here too "obſerved, that the loweſt claſs of natives are often tattowed with a "mark that diſtinguiſhes them as the property of ſome chief."

Model of an Otaheitean CANOE.

New Zealand CANOE.

Models of CANOES of different nations, Eſkimaux, Nootka Sound, Davis's Straits, New Zealand, &c.

LINES for FISHING, made of human hair.

Baſket to hold liquids from the Sandwich Iſlands, South-Seas.

BREAD-POUNDER, from Otaheite. It is made of black baſaltes, and is an aſtoniſhing effort of labour, executed by a people to whom the uſe of iron inſtruments are unknown. It is uſed in pounding the BREAD FRUIT.

SPEAR-CASTER, from New Zealand, with which the natives ſtrike fiſh with a ſurpriſing celerity.

Caps from Nootka or King George's Sound, made of ſea graſs, finely woven together: on one is deſigned the proceſs of their Whale Fiſhery. "This, (ſays Capt. Cook,) though rudely executed, ſerves "to ſhew, that though there is no appearance of the knowledge of "letters among them, they have ſome notion of repreſenting actions "in a laſting way, independent of what may be recorded in their "ſongs and tradition." They are worn by both ſexes without diſtinction.

HATS, from the Sandwich Iſlands, made of the feathers of Parrots and other Birds.

MATTING, from the South-Sea Iſlands.

A Dancing Girl's APRON, from Otaheite.

A MANTLE, from Nootka, or King George's Sound. This kind of ornament paſſes under the right arm, and ties over the left ſhoulder, by which means both arms are at liberty. It is made of flax ſo curiouſly knotted together, that on examination it muſt aſtoniſh the beholder, more eſpecially when he conſiders that it was made by a nation to whom the loom is unknown.

WOODEN SWORD, from Botany-Bay. It is worthy of remark, that when Capt. Cook firſt diſcovered New Holland, he was aſtoniſhed to behold the natives ſo expert in handling the ſword after the European manner, from which he concluded they had ſeen and copied the uſe of that weapon.

Bow and ARROWS, of different nations.

Two ſmall CLOAKS, made of feathers, to cover the ſhoulders, from the South-Seas.

An IDOL, from the Sandwich Iſlands. This monſtrous and uncouth repreſentation of the human countenance is made of wicker work, curiouſly covered with ſmall feathers of various colours, wrought in the ſame manner as their cloaks. The eyes are made of large pearl ſhells, with a nut of black wood in the centre; the mouth is ſet with a double row of dog's teeth, which, together with the reſt of the features, are ſtrangely diſtorted.

Glass Case, B.

Moſt of the articles in this Caſe were preſented to the Muſeum by Dr. James E. Smith, of Marlborough-ſtreet, London, Preſident of the Linnæan Society.

Specimens of the bark of the Lagetto Tree, the curious texture of which reſembles gauze. King Charles II. (it is ſaid) had a pair of ruffles and a cravat made from this bark, which were preſented to

him by a merchant from Jamaica, which he frequently wore. The Cloth of the South-Sea Iſlands is made from the a ſimilar bark.

Fine Specimen of the BANKSIA SERRATA in flower. This is one of the four ſpecies of Bankſia deſcribed in the Supplementum Plantarum of Linnæus, ſpecimens of which are contained in the Herbarium of that great naturaliſt, now in the poſſeſſion of Dr. J. E. Smith.

The Bankſia Serrata is conſidered as the moſt ſtately of the genius. Its trunk is thick and rugged; it is a native of New Holland, and received the denomination of Bankſia in compliment to Sir Joſeph Banks.

Bankſia Serrata in Fruit, a fine ſpecies.—New Holland.

A non-deſcript Bankſia in flower.

WOODEN PEAR, *Xylomelum Pyriforme.* This ſpecies was firſt diſcovered at Botany-Bay, New Holland, when the coaſt of New South Wales was firſt explored by Sir Joſeph Banks and Dr. Solander. The natives call it the Merry-dugur-to. The tree which bears this ligenous pear is an evergreen.

Heath-leaved BANKSIA, *Bankſia Erici-folia*, from New Holland.

Yellow GUM, from Botany-Bay. *Xanthorrhœa Haſtile.*

Cyliſta Comoſa, from Sierra Leone.

Aſzelia Specioſa, from Sierra Leone.

Botany-Bay FLAX, *Phormium Tenax.*

Curious Flower, an unknown Plant.

Beautiful Everlaſting Flower.

Strings of Beads made of Aromatic Berries from South-America.

Pod of a very large BEAN.—Cotton in the Pod and in Flower.

Curioſities from North and South America.

HALTER, made of the bark of the Lagetto or Cabbage Tree.

MAUCASSONS, or SHOES, worn by the Indians of North America, ornamented with porcupine quills, and taſſels of red hair. The leather is ſaid to be dreſſed in blood, which prevents the wearer's feet from freezing; on which account they are often uſed by Europeans in that country.

A QUIVER of POISONED ARROWS, with the TUBE uſed in diſcharging them; brought from Demerara. Theſe inſtruments of deſtruction are nine inches long, and about the thickneſs of a ſmall quill; they are made of a light wood ſharply pointed, and are dipped in poiſon to the depth of two inches, which generally proves fatal to the object that is wounded by them: they are diſcharged with unerring certainty, by being blown through a hollow tube of wood, nine feet long. Near the quiver hangs a ſmall baſket, which contains a down-like ſubſtance, a ſmall piece of which is put into the

tube after the arrow, which prevents the eſcape of the air, and cauſes it to fly with almoſt incredible velocity.

An ornamental BELT, uſed by the North American Indians, for bringing home the ſkins of animals taken in hunting excurſions.

BOW and FISH ARROWS, from the North-Weſt coaſt of America.

Several POUCHES, ſome of them very curious from North America.

Pair of ornamental GARTERS, principally made of Porcupine Quills, from North America.

A PURSE, or TOBACCO POUCH, made of the ſkin of the Stifling, or Squaſh, ornamented with taſſels of deer's hair, from North America.

MAUCASSONS, or Indian SHOES.

Ornament for the Neck, made of the ſhells of ſome ſmall hard Nut, from Demerara.

BOW and QUIVER of ARROWS, from ditto.

Several MUSICAL INSTRUMENTS, from Demerara, among which is a kind of Flute.

A great variety of Bows and ARROWS, from Surinam.

A MEXICAN GOURD.

CALUMET, or PIPE of PEACE, uſed by the North American Indians, to ſmoke tobacco, bark leaf, or herb, when they enter into an alliance, on any ſerious occaſion, or ſolemn engagement; this being among them the moſt ſacred oath that can be taken, and the violation of it is thought deſerving of the puniſhment of heaven.

A SNOW SHOE, from Hudſon's Bay, upwards of five feet long; it is very light, and covers ſuch a ſpace as prevents the feet of the wearer from ſinking into the ſnow.

A Pair of SNOW SHOES for a Child.

A Pair of SNOW SHOES, from Canada, not ſo long as the preceding, but broader and rounder in front.

NECK ORNAMENT, made of feathers, from South America.

Two HAMMOCKS, of curious workmanſhip, from South America, preſented to the Muſeum by the Hon. Col. St. Leger, of Dublin.

Small Glass Case, C.

A WAMPUM BELT, of great value among the Indian Chiefs of North America; often given as a pledge of honour.

A CAP, from Africa, made of platted graſs.

CHINESE MONEY. Theſe pieces have square holes through them, and are always ſtrung together. Seventy-ſix of them are the value of an English ſixpence.

ROUGE, uſed by the Chineſe ladies to colour their faces.

Specimen of the CLOTH made of ASBESTOS, that will remain in the hotteſt fire without burning. Pliny mentions his having ſeen napkins of this cloth, which being taken from the table after a feaſt, were thrown into the fire and by that means, were better cleanſed than if they had been waſhed in water. But its principal uſe, according to that author, was for making ſhrouds for royal funerals, to wrap up the corpſe, ſo that the human aſhes might be preſerved diſtinct from thoſe of the wood.

ASBESTOS, or MINERAL FLAX, in its natural ſtate.

MICA, or TALC, uſed for windows before the invention of glaſs. Clear white plates of this ſubſtance are uſed for glazing the lanthorns of men of war, as fire has little effect on it.

AFRICAN CURIOSITIES.

A ſingular MUSICAL INSTRUMENT, from the Slave Coaſt, ſomewhat reſembling the Italian Sticcado: it is made of pieces of hard ſonorous wood of different lengths placed upon a frame, under which are fixed gourds of various ſizes. It is played upon by beating it with two ſticks with balls at the end. On the coaſt of Africa it is called *Balafou*; and when it is played by a ſkilful hand, it produces an agreeable harmony.

A ſmall kind of STICCADO, made of ſonorous wood.

An INSTRUMENT, conſiſting of a ſmall ſquare board, on which are fixed pieces of very pliant wood, which on being ſtruck produce a muſical ſound.

African King's SCEPTRE, in ſhape like a rod, being made of ſmall ſplit pieces of bamboo cane. Theſe are valued according to their length, for by that the rank of the perſon is known; that of the King's being made of the longeſt joints of bamboo that can be found in his dominions.

Curious CARTOUCH-BOXES.

A Circular FAN, covered with a parchment-like ſkin, curiouſly painted.

Several POUCHES, ſome of them very ſingular in conſtruction.

A Pair of SANDALS, or SHOES. Theſe, in Africa, are ſeldom uſed.

Common BLACK BOTTLE, curiouſly caſed with wicker work.

AFRICAN COMB, ſimilar to that of the Sandwich Iſlands.

A rude NECKLACE, compoſed of ſtones that have holes naturally through them without boring.

Various kinds of GOURDS, uſed as veſſels to carry liquor.

AFRICAN SPOON, made of Wood.

Curious WOODEN FAN.

A large Ladies' POCKET or POUCH, finely embroidered with the needle-work of the country.

African Female APRON or FLAP, made of matted graſs.

African Bows and Quivers of long POISONED ARROWS.

Great variety of African LANCES, ARROWS, and DAGGERS.—*See the Daggers in the Armoury.*

A ſmall INSTRUMENT ſimilar to a SCOTTISH MULL, uſed for the purpoſe of grinding tobacco into powder.

African LONG DRUM, covered at the end with ſkin.

African pair of BELLOWS, of very curious conſtruction.

African HARP.

Very large CALABASH, to carry water.

An African FLAMBEAU, made of Flag-leaves, filled with a reſinous gum.

POUCH or POCKET, made of graſs, uſed by Negro ſervants to carry letters, &c.

A kind of HAMMOCK, of ſingular net-work, uſed in Africa, either for ſleeping or travelling.

Small GOURDS, covered with net-work, on the meſh-knots of which are ſtrung a kind of Black Berries, that produce a ſound ſimilar to caſtinets. They are uſed by the Africans when they dance.

An African CHARM, called FETISH, conſiſting of a RAM's HORN, to which is ſuſpended a braſs chain and bell. This is worn round the neck, and is imagined by the wearer to charm or drive away evil and tormenting Spirits, and preserve life. It was taken from the breaſt of a black man, engaged in battle, by Captain Clarke of the ſhip Roebuck, of Liverpool; who preſented it to the Muſeum.

Specimen of AFRICAN CLOTH, made of graſs.

A curious SLEEPING NET or HAMMOCK, from Africa; preſented by Captain Roberts, of Liverpool.

WORKS OF ART.

Beautiful Equeſtrian MODEL of EDWARD the BLACK PRINCE in Armour, finely executed by Mr. G. Bullock, of Liverpool.

PORTRAIT of Mrs. SIDDONS in Queen Catherine, and Mr. KEMBLE in Cato, by ditto.

Capital GROUP of FIGURES, repreſenting the progreſs of inebriety;

A BLIND BEGGAR, led by a Child;—

A DYING PHILOSOPHER;—

And a DEAD CHRIST.

[The four laſt pieces are all modelled by Mr. Piercy, in coloured wax, and are univerſally admired by every lover of the arts, for the correct and ſpirited manner in which they are executed.]

Small Whole-Length FIGURE of the FRENCH GENERAL HUMBERT, who was taken priſoner in Ireland.

BUSTS, in Rice Paſte, of SENECA and PAULINA, from the antique.

A ſmall Anatomical Figure, from the original of Dr. HUNTER, done in Rice Paſte of its natural colour.

An exquiſite MODEL, in Rice Paſte, of the DEATH of VOLTAIRE; by Mons. Oudon, of Paris.

Gothic MODEL of an ANCIENT ARMOURY, on a ſcale of an inch to a foot. It contains accurate models and repreſentations of every kind of Armour and Warlike Weapon uſed in the Britiſh armies, from the Norman Conqueſt to the reſtoration of Charles II.

BUST, in Carrara Marble, ſize of life, of Maſter H. W. BETTY, (the young Roſcius,) at the age of 14; by Mr. L. Gahagan.

GROUP of FLOWERS, wonderfully cut in white Marble.

Bacchanalian GROUP of 12 Figures, cut in high relief, in ſtatuary Marble, by Lege.

MODEL of a Chineſe PAGODA, made of Mother of Pearl, ornamented with carving and gilding.

Complete MODEL of a MAN of WAR, only ſix inches long.

A ditto, entirely of Ivory.

View of the Lake and City of GENEVA, moſt inimitably carved in Ivory.

The City of MESSINA, taken from the ſea; the ſhipping &c. executed with aſtoniſhing minuteneſs; ſome of the veſſels, though not more than half an inch in length, have the ſails, rigging, men, &c. perfectly diſtinct.

WINDSOR-CASTLE, with the Thames.

GREENWICH-HOSPITAL, with ſhipping, &c.

Two Pieces, with Stags in a Foreſt.

[The above 6 are all in IVORY, carved in the moſt exquiſite manner by Meſſrs. Stephany and Dreſh.]

Pair of BEGGARS, carved in Ivory, the drapery of Roſe-Wood.

Sixteen hollow BALLS of IVORY, cut within each other out of one ſolid piece by the Chineſe in the moſt wonderful manner, every ball being pierced of a different pattern almoſt as fine as lace.

Another ditto, with only eight Balls.

Several beautiful Turnings in Ivory, by Mr. Perry, of London.

PORTRAIT of Sir ISAAC NEWTON, turned in a lathe.

PICTURE of a SAINT, ſailing on his cloak, in marble of its natural colours.

Two beautiful Imitations of FLOWERS, made entirely of SHELLS, by Miſs Humphreys, of Leiceſter-ſquare.

Caſe of FLOWERS, made of Butterfly's Wings.

Large Picture of VULTURE and SNAKE, finely done in coloured ſand.

HOLY FAMILY, from Carlo Maratti, done in wool, at Rome.

Picture of BIRDS, executed with Feathers.

PICTURE, which being viewed in different directions, produces three different ſubjects.

Picture of a FALCON, done by the Chineſe in folded Satin.

A Dutch MERRY-MAKING, from Teniers, in coloured Straw.

A JEW RABBI, done with a hot iron, on wood.

Several Copies of Engravings with pen and ink, by Monſ. Mongenot.

MODEL of a MAN of WAR, of ſixty guns, entirely of Cryſtal Glaſs.

Complete MODEL of a Seventy-four gun SHIP at anchor, only ſix inches long.

PROFILE HEADS of the following celebrated Painters: Titian, Raphael, M. Angelo, Corregio, Carracchi, and Carlo Marati.

NATURAL HISTORY.

QUADRUPEDS.

Theſe are thy glorious works, Parent of Good.

Thou ſitt'ſt above theſe heavens
To us inviſible, or dimly ſeen
In theſe thy loweſt works; yet theſe declare
Thy goodneſs beyond thought, and power divine.

MILTON.

VARIEGATED, TUFTED, or URSINE BABOON, (*Simia Mormon.*)

This Baboon is very numerous about the Cape of Good Hope, and is one of the largeſt of this tribe of animals, meaſuring, when full grown, nearly five feet in height. It is very ſtrong, fierce, and libidinous, yet at the ſame time is capable of attachment and gratitude. One that was ſent to the Proprietor of this Muſeum, in the year 1803, had two deep wounds in its loins, owing to the preſſure of a heavy chain by which it was confined: on appearing anxious to examine the wounds, it preſented the lacerated part to inſpection, and after one ſide was dreſſed with a very ſharp mixture, (though at the ſame time it was agonized with pain,) it opened the other wound for the ſame application, which it continued to do until ſuch time as the excoriated places were healed. It remained at the Muſeum ſome time afterwards, and although miſchievous to the family, yet on the leaſt motion of the hand, or on uttering an angry word, it was all attention and ſubmiſſion. Theſe baboons in their native country do conſiderable damage to the gardens and plantations, carrying on their depredations in large troops, with ſuch boldneſs and reſolution, as excite aſtoniſhment.

RIBBED-NOSE BABOON, (*Simia Mormon.*)

It is about two feet from noſe to tail, an active and ſprightly animal, greatly reſembling the laſt, but not ſo large, nor the colours ſo bright, and is playful, but not ſo malignant.

DOG-FACED BABOON, (*Simia Hamadryas.*)

A very large and fierce ſpecies, remarkable for the long grey hair with which it is covered: it is rarely brought to Europe, is a native of the horteſt parts of Africa, where it is ſaid to be found in vaſt troops, and to be very fierce and dangerous.

Large Case, No. 4.

PALATINE MONKEY, (*Simia Rolaway.*)

This beautiful and gentle animal, was brought from the Slave Coaſt in Africa; its colour appeared to have changed much on its being confined, as the rich bay on the inſide of the limbs was turned to a yelloviſh white; its ſingular white beard gave it, whilſt living, an air of great gravity, and its manners were quite inoffenſive and mild. It died in the collection of Mr. Polito, in the winter of 1808, owing probably to the ſeverity of the weather.

The MUSTACHE, (*Simia Cephus.*)

The NEGRO MONKEY, (*Simia Maura.*) It was received alive from Africa.

The CHINESE MONKEY, (*Simia Sinica.*)

The MANGEBY, (*Simia Æthiops.*)

FOX-TAILED MONKEY, (*Simia Pithecia.*)

The hair of this very ſingular animal is very long, of a dark brown, or nearly black colour; it is about the ſize of a large cat; is a native of Guinea, and is ſaid to be very fierce in its diſpoſition.

STRIATED MONKEY, or SANGLIN, (*Simia Jacchus.*)

This extraordinary little animal, no larger than a ſquirrel, is an inhabitant of Brazil. In a native ſtate, theſe Monkies are ſuppoſed to feed upon fruits, but in a ſtate of confinement they will occaſionally feed on inſects, ſnails, &c. Edwards, in his Gleanings, makes mention of a pair of theſe animals which belonged to a London merchant, who reſided at Liſbon; had young at that place. Theſe at their birth were exceedingly ugly, having no fur. They would frequently cling faſt to the teats of the dam; and when they grew a little, they uſed to hang upon her back and ſhoulders. When ſhe was tired, ſhe would rub them off againſt the wall, or whatever elſe was near, as the only mode of ridding herſelf of them. On being forced from the female, the male immediately took them to him, and ſuffered them to hang round him, to eaſe her of the burthen. This kind of Monkey is very rarely brought to this country.

The GREAT-EARED MONKEY, (*Simia Midas.*)

About the ſize of a ſquirrel; the colour black, except the hands and feet, which are orange. It is a native of Cayenne and Brazil.

ORANGE MONKEY, (*Simia Sciurea.*)

This is one of the ſmalleſt and moſt beautiful of the Monkey tribe; it is a native of South-America, and it is with difficulty kept alive in this country.

LONG-ARMED, FOUR-FINGERED, or SPIDER MONKEY, (*Simia Paniscus.*)

This was received from South-America, in the ſummer of 1808, and lived for ſome time. In general its appearance was extremely diſguſting; the arms of an extraordinary length, and the hands deſtitute of all appearance of thumbs; the tail is alſo of great length, is bare for a conſiderable way near the tip, and by means of it could reach any thing as well as with its hands. The whole animal, except the face, hands, and end of the tail, is covered with long coarſe black hair, thinly diſpoſed, except on the head, where it grew forward in the ſame manner as the human ſpecies, giving to its mulatto-coloured face the appearance of a miſerably wretched old man; its diſpoſition was extremely gentle and inoffenſive, but ſo timid as never to be familiar; if held by the hands it uttered a doleful cry, and frequently tears ran from its eyes, but it never ſhewed the leaſt inclination to bite.

FEARFUL, or RING-TAIL MONKEY, (*Simia Trepida.*)

Native of Guinea; of a lively diſpoſition; is frequently kept in England, and has been known to breed in France.

Large Case, No. 3.

SLOW LEMUR, (*Lemur Tardidradus.*)

About half the ſize of a cat, and is a native of the coaſt of Coromandel. According to the pleaſing deſcription of the late learned Sir Wm. Jones, in the 4th volume of Aſiatic Reſearches, its manners are gentle and pleaſing, it ſleeps during the day, and feeds on fruits.

WOOLLY LEMUR, or MONGOZ, (*Lemur Mongoz.*)

About the ſize of a cat, is a native of Madagaſcar, feeds on fruits, and in a ſtate of captivity is ſportive and harmleſs.

RING-TAILED LEMUR, or MAUCAUCO, (*Lemur Catta.*)

This is a very beautiful, gentle, harmleſs, and entertaining animal, frequently kept tame by ladies; it is a native of the warmer parts of India, and feeds on fruit, which it eats ſitting upright, and holding in its fore paws.

LITTLE LEMUR, (*Lemur Prehenſilis.*)

Is about half the ſize of a rat, is an elegant little animal, and bears a ſtrong reſemblance to the monkey tribe.

LEMURINE OPPOSUM, (*Didelphis Lemurinus*, Shaw's Zoology, I 1, page 487.)

Living Specimens of this beautiful animal have been brought to England: in their manner of life they reſemble the reſt of the tribe, feeding on birds, vegetables, &c.

PYGMY OPOSSUM, (*Didelphis Pygmæa.*)

Is not larger than a common mouſe, with membranes like the Flying Opoſſum; it is a native of New Holland.

The BLACK SQUIRREL, (*Sciurus Nigra.*)

Numerous in North-America.

GREY SQUIRREL, (*Sciurus Cinerius.*)

It inhabits North-America and Peru; builds in hollow trees, lays waſte plantations of maiſe, and forms ſubterraneous magazines for winter proviſion.

In this caſe is alſo a large Non-deſcript Animal from New Holland.

Lower Case, No. 4.

The COMMON SEAL, (*Phoca Vitulina.*)

This animal is a native of the European Seas, and is found about all the coaſts of the Northern hemiſphere, and even as far as the oppoſite one, being ſeen in vaſt numbers about the Southern polar regions. We are informed by Mr. Pennant, that it alſo inhabits ſome freſh-water lakes, as that of Baikel, Oron, &c. Seals may often be obſerved ſleeping on the rocks, near the coaſt; but when approached too near, they ſuddenly precipitate themſelves into the water. Sometimes they ſleep ſound, and it is affirmed by ſome, that the Seal ſleeps more profoundly than moſt other quadrupeds. The ſtructure of the Seal is ſo ſingular, that as Buffon well obſerves, it was a kind of model, on which the imagination of the Poets formed their Tritons, Sirens, and Sea-Gods, with a human head, the body of a quadruped, and the tail of a fiſh. The Seal is poſſeſſed of a conſiderable degree of intelligence, and may be tamed, ſo as to become familiar. The female Seals produce their young in the winter ſeaſon, and ſeldom bring more than two at a birth. It is ſaid, that they ſuckle the young ones for about the ſpace of a fortnight on the ſpot where they are born, after which they take them out to ſea, and inſtruct them in ſwimming and ſeeking their food, which conſiſts of fiſh, ſea-weeds, &c.

FALKLAND-ISLE SEAL, (*Phoca Auſtralis.*)

Remarkable for the ſtructure of the hind feet, the webs of which extend far beyond the claws, which, in the fore feet, are wanting.

A Small SEAL, from Davis's Straits, ſuppoſed (*Phoca Puſilla.*)

On the Top of Case No. 5.

MADAGASCAR, or VAMPYRE BAT, (*Veſpertilio Vampyrus.*)

This uncommon animal is called by Buffon the *Rouſette*; it meaſures nearly three feet from the tip of one wing to the other; the body is nearly as large as that of a cat, but it reſembles a rat in the ſhape of the head; it is covered with ſhort hair of a reddiſh brown colour; the top of each wing is armed with a ſtrong claw, with which it faſtens itſelf to the branches of trees; it has likewiſe five ſharp claws on each foot. Some of theſe animals grow to an enormous ſize; and in the iſlands of the Eaſt-Indies they are ſometimes ſeen in ſuch numbers, that they darken the air at noon-day; they are carni-

verous, and very voracious. In a ſcarcity of fleſh and fiſh, they feed on vegetables and fruits of every kind. This is the Bat to which Linnæus applied the title of Vampyre, on the ſuppoſition of its being the ſpecies of which ſo many extraordinary accounts have been given relative to its power of ſucking the blood of men and cattle.

Large Case, No. 5.

MADAGASCAR BAT, with the wings cloſed.

The LONG-EARED BAT, (*Veſpertilio Auritus.*)

This is one of the moſt common Engliſh Bats, and may be frequently ſeen during the ſummer evenings purſuing the various inſects on which it feeds.——In the ſame caſe is a White Variety of this animal, in which the delicate and admirable ſtructure of the wings is finely ſhewn.

The GREAT BAT, (*Veſpertilio Noctula.*) The largeſt of the Britiſh Species.

The SLOTH, (*Bradypus Tridactylus.*)

Theſe are, of all quadrupeds, the moſt ſlothful and indolent. "Nature (ſays the Count de Buffon) ſeems to have created this ill-"conſtructed maſs of deformity for nothing but miſery." They have neither canine or inciſive teeth; their eyes are dull and heavy; their mouths wide and thick; their fur reſembles dried graſs; their thighs are almoſt diſjointed from their haunches; their legs are very ſhort, and badly ſhaped; they have no ſoles to their feet, nor toes ſeparately moveable; but only two or three claws, exceſſively long, crooked downwards and backwards. They can neither ſeize on prey, nor feed on fleſh, and are therefore reduced to live on leaves and wild fruits. They take up a long time in crawling to a tree, and are ſtill longer in climbing to its branches. When at laſt one of them has accompliſhed its end, it faſtens itſelf to a tree, crawls from branch to branch, and by degrees ſtrips the whole of its foliage; in this manner it remains ſeveral weeks without moiſtening its food; and when it has conſumed its ſtore, and the tree is left quite naked, unable to deſcend, it continues on till hunger preſſes, which becoming more powerful than the fear of danger, or even death itſelf, it drops to the ground, without being capable of exerting any effort to break the violence of the fall. Its manners are ſluggiſh to an exceſſive degree: its general appearance diſguſting; its voice plaintive, piteous, and even horrible. It can live a prodigious time without food: Kircher ſays forty days. It has vaſt ſtrength in the paws, and faſtens its claws into any thing with ſuch force that they cannot be diſengaged; hence, when beaſts of prey attack this animal, it adheres to them ſo ſtrongly, that they both are found dead in each other's graſp.

LITTLE ANT-EATER, (*Myrmecophaga Didactyla.*)

Inhabits Guinea, and the hotteſt parts of South-America. It climbs trees in queſt of a ſpecies of ants that build their neſts among the branches; they thruſt out their clammy tongue into the neſt, and draw it into their mouths covered with inſects. Their tail is of great uſe to them in climbing, for they twiſt it round the branches to prevent their falling.

MIDDLE ANT-EATER, (*Myrmecophaga Tetradactyla.*)

Inhabits South-America, goes out in the night, and ſleeps during the day; when irritated, it ſeizes on a ſtick or other object with its fore claws, and fights ſitting on its hind legs; the extremity of the tail is naked and prehenſile, by means of which it is enabled to ſuſpend itſelf to the branches of trees.

PORCUPINE ANT-EATER, (*Myrmecophaga Aculeata*, Shaw's Zoology, vol. 1, page 175.)

This is one of thoſe curious animals which have been lately diſcovered in New Holland. It differs from all the other Ant-Eaters in having the body covered with ſharp ſpines, reſembling porcupine's quills, only they are ſhorter and thicker in proportion. It has a remarkably long tubular ſnout, with a very ſmall mouth, out of which it ſhoots its wormlike tongue, in the ſame manner as the others. It burrows under the ground with the greateſt eaſe, nature having furniſhed it with amazing ſtrength in its legs and feet.

Another PORCUPINE ANT-EATER, in the ſame caſe, varies from the above in the lightneſs of the colour of the ſpines, and their being ſhorter, and more covered with ſtiff whitiſh hair; probably of a different ſex, or a younger animal.

LONG-TAILED MANIS, (*Manis Tetradactyla.*)

This rare animal is a native of India and Africa. It is perfectly gentle and harmleſs, though it has the moſt formidable appearance, being entirely covered with large ſharp ſcales, which it erects when irritated. Buffon ſays, "The moſt cruel and voracious of beaſts, "ſuch as the Tiger and the Panther, make but uſeleſs efforts to de-"vour theſe armed animals; they tread upon and roll them, but "when they attempt to ſeize them, they are grievouſly wounded; "they can neither terrify them by their violence, nor cruſh them by "their weight." This animal has a ſtrong affinity to the Ant-Eaters, from which they chiefly differ in the covering of their bodies.

Another ſpecimen of this ſingular Animal, in the ſame caſe, differs in having double the number of ſcales, which are of courſe only half the ſize.

The PLATYPUS, (*Platypus Anatinus.*)

Of all the quadrupeds yet known, this ſeems the moſt extraordinary, exhibiting the perfect reſemblance of the Beak of a Duck engrafted on the head of a quadruped; ſo great was the reſemblance, that Dr. Shaw, who publiſhed the firſt account of it, could ſcarcely refrain from thinking it a deception; but we are ſince become acquainted with the animal and its habits. It is a native of New Holland, and is found in the freſh-water lakes in the neighbourhood of Port Jackſon, in the muddy banks of which it procures its food. Governor Hunter obſerved a native ſpear one with great dexterity;

but it uſed its ſharp claws with ſuch ſtrength that it was neceſſary to confine it between two boards in order to extract the barb, when it ran off with greater ſpeed than from the ſtructure of the fore feet it ſeemed capable of doing on the land.

MARGAY, or TYGER CAT, *(Felis Tigrina.)*

This diminutive ſpecies of Tigers, which is ſcarcely as large as the domeſtic cat, is a native of South-America. In the diſpoſition of its colours it greatly reſembles the panther. It is very fierce and untameable.

MURINE OPOSSUM, *(Didelphis Murinus.)*

A native of Surinam, and one of the ſmaller ſpecies.

VIVERENE OPOSSUM, *(Didelphis Viverrine.)*

A native of Botany-Bay, and varies much in colour, being ſometimes black, ſpotted all over with white.

PALM SQUIRREL, *(Sciurus Palmarum.)*

FLYING SQUIRREL, of America, *(Sciurus Volucella.)*

Is leſs than the common European, being not above five inches long, and is of a grey aſh colour on the back, and white on the under parts; he has black prominent eyes like a mouſe, with a large broad flat tail. The name ſeems to imply that he is endowed with wings like a bat, which however is not the caſe; for he has only a looſe ſkin on each ſide, extending from the fore to the hinder feet, with which it is connected; this ſkin he can ſtretch out like a ſail, which holds ſo much air, that it buoys him up, by which means he can jump from one tree to another at a great diſtance, inſomuch that ſome have thought he had the faculty of flying. He feeds on the ſame proviſions as other ſquirrels, and may eaſily be made tame; but he is apt to do a great deal of miſchief in corn-fields, by cropping the corn as ſoon as it begins to ear.

Bottom Case, No. 6.

PANGOLIN, or SHORT-TAILED MANIS, *(Manis Pantadactyla.)*

A remarkable fine ſpecimen of this extraordinary and highly curious animal, meaſuring five feet in length; it is a native of Africa and India, and its principal food is the white ant, againſt the united attacks of which Nature has given its impenetrable coat of armour.

In the bottom of this caſe are two Specimens of the Nine-Banded ARMADILLO, with a young one, and one of the Eight-Banded.

They receive the name of Armadillo, or Hog in Armour, from the Spaniards, and from the impenetrable coat of mail with which it is furniſhed by nature for its defence. It is a native of South America, where there are ſeveral kinds of them; but the principal difference conſiſts in the number of bands, or folds, of which the armour that covers the body is compoſed. It is a harmleſs inoffenſive animal; feeds on roots, herbs, and other vegetables; grows very fat, and is much eſteemed for the delicacy of its fleſh. The

Indians hunt it with ſmall dogs trained for the purpoſe: when it is ſurprized, it runs to its hole, or attempts to make a new one, which it does with great expedition, having ſtrong claws on the fore feet, with which it adheres ſo firmly to the ground, that if it ſhould be caught by the tail, whilſt making its way into the earth, its reſiſtance is ſo great that it will ſometimes leave it in the hands of its purſuers; to avoid this the hunter has recourſe to artifice, and by tickling it with a ſtick, it gives up its hold, and ſuffers itſelf to be taken alive. If no other means of eſcape be left, it rolls itſelf up within its covering, by drawing in its head and legs, and bringing its tail round them, as a band to connect them more forcibly together; in this ſituation it ſometimes eſcapes by rolling itſelf over the edge of a precipice, and generally falls to the bottom unhurt.

Bottom Case, No. 8.

HUNTING LEOPARD. *(Felis Jubata.)*

This animal was received from Senegal, and was perfectly tame, having never been ſubject to confinement. In India they are tamed for the taking of game; three living ones were ſhewn a few years ſince in the Tower, that were part of a pack belonging to the late Tippoo Sultan.

Bottom Case, No. 9.

The JAQUAR, *(Felis Onca.)*

It is ſometimes called the AMERICAN TIGER; is a native of the hotteſt parts of South-America, and is a fierce and deſtructive animal.

The MARGAY, *(Felis Tigrina.)*

Is likewiſe from South-America, is about the ſize of a cat, reſides paincipally on trees, preying on birds. It is extremely fierce and untameable.

The CUB of the PUMA, or MOUNTAIN LION, *(Felis Concolor.)*

Bottom Case, No. 10.

THREE-STRIPED WEASEL, *(Viverra Hermaphrodita.)*

It is a native of Barbary, and very deſtructive to poultry.

The GENET, *(Viverra Genetta.)*

This beautiful little animal was kept for ſome time alive, and was ſometimes ſuffered to play at liberty in the houſe: in ſome parts of the Eaſt it is domeſticated, and is very uſeful in clearing the houſes of vermin.

STRIATED WEASEL, *(Viverra Putorius.)*

It is a native of North-America, and remarkable for the intolerable ſtench which it emits when irritated, which is ſo powerful as to

prevent either men or dogs from purſuing it: even the clothes of perſons who are near it at the time are obliged to be buried in the ground for ſome time before they can be purified.

The ICHNEUMON, (*Viverra Ichneumon.*)

In India, but ſtill more in Egypt, the Ichneumon has always been conſidered as one of the moſt uſeful and eſtimable of animals; ſince it is an inveterate enemy to ſerpents, rats, and other noxious creatures which infeſt thoſe regions. In India it attacks with courage that moſt dreadful reptile, the Cobra de Capello, or Hooded Snake. It alſo diligently ſeeks for the eggs of crocodiles; for which reaſon, as well as its general uſefulneſs in deſtroying all manner of troubleſome reptiles, it was held in ſuch a high degree of veneration by the ancient Egyptians, as to be regarded as a minor deity, or one of thoſe benevolent beings proceeding from the Parent of the Univerſe. For the purpoſes above ſpecified it is ſtill domeſticated by the Indians and Egyptians, in the ſame manner as the cat in Europe; and it has alſo the merit of being eaſily tamed, and performing with alacrity all the offices of that creature. Like many others of this tribe, it is a moſt dangerous enemy to ſeveral animals larger than itſelf; over which it gains a victory, and ſucks their blood. In a wild ſtate it frequents rivers in queſt of prey, where, it is reported to ſwim and dive like an otter, and continue a length of time under water. As it is a native of warm climates, it of courſe is greatly injured by a removal to the cold regions of Europe, to the variations of which it generally falls a victim.

The ERMINE, (*Muſtela Erminea.*)

Is found principally in the wilds of Ruſſia, and other cold countries. It is from the ſkin of this animal that the valuable white fur is made. They are ſaid to change their colour, being brown in ſummer, and white in winter.

The MINX, (*Muſtella Minx.*)

Inhabits North-America.

In this caſe are alſo two varieties of the SPOTTED WEAZLES of New Holland.

Bottom Case, No. 11.

The OTTER, (*Muſtela Lutra.*)

Is pretty generally diffuſed over Europe, North-America, and Aſia, as far as Perſia; it feeds principally on fiſh, and is very deſtructive to our ponds and rivers; it lives in holes under ground, the openings to which are beneath the ſurface of the water. The bite of the Otter is extremely ſevere, but they are capable of being tamed, and taught to fiſh for their owner, which they do with the greateſt addreſs, as they are capable of remaining a conſiderable time under water.

The BEAVER, (*Caſtor Fiber.*)

The Beaver is a native of the moſt Northern parts of Europe, Aſia, and America; in its natural ſtate lives in well-regulated ſocieties of from two to three hundred each, conſtructing their habitations of wood and clay, in the moſt aſtoniſhing manner, with the greateſt regularity; but when taken from their native haunts they are ſaid, by all naturaliſts who have had opportunity of obſerving them, to loſe their inſtinct, and become a ſtupid and ſluggiſh animal. The following anecdote may, however, be relied on: a pair of them was purchaſed a few years ſince by Mr. Polito, for the purpoſe of exhibiting in his collection: they were put into an upper room or loft, with a quantity of green ſticks and boughs for their food; on viſiting them in the morning, only one could be diſcovered, which was laying in a ſtate of evident uneaſineſs in a corner of the room; at laſt, after ſome ſearch, the female was found to have died in the night, and the male had removed her to an obſcure part of the place, and covered her carefully over with wood, ſo that no part of her could be ſeen, and had then retired to the place where he was found.

Upper Case, No. 12.

The GREAT FLYING SQUIRREL, of New Holland, (*Sciurus Petaurus.*)

This is the largeſt and moſt elegant of the Flying Squirrels yet deſcribed. Its moſt remarkable characteriſtic is, the rounded thumbs, or great toes of the hind feet, which are furniſhed with a flattened nail: while all the other toes, five to each foot, have ſharp hooked claws. In its manners it reſembles the Flying Squirrel.

A beautiful White Variety of the above.

A large FLYING SQUIRREL, unknown.

The YOUNG KANGAROO, (*Didelphis Gigantea.*) *See page* 24.

KANGAROO RAT, (*Didelphis Tridactyla.*) *See page* 25.

The Quadrupeds hitherto deſcribed are in large uniform Caſes, regularly numbered, with references to the page in this Catalogue in which they are mentioned: thoſe which follow are diſperſed in various parts of the collection, as their ſizes or other circumſtances prevent a ſimilar arrangement.

The SLOTH. *See Caſe, No.* 5.

The GREAT ANT-EATER, or TAMANOIS, (*Myrmecophaga Jubata.*)

This is much the largeſt of the Ant-Eaters, as well as the moſt ſingular in its appearance; it is upwards of ſix feet in length, with a very long ſlender ſnout, out of which it protrudes its worm-like tongue into the neſt of ants on which it feeds. It is a native of South-America, from whence one was ſome years ſince brought to Spain: it was fed on raw meat cut ſmall, of which it ate four or five pounds a day.

The RHINOCEROS, *(Rhinoceros Unicornis.)*

Next to the Elephant, the Rhinoceros may be conſidered as one of the moſt powerful of animals; in ſtrength indeed he is inferior to none, and his bulk, (ſays Bontius,) equals the elephant, but is lower only on account of the ſhortneſs of his legs. The length of the Rhinoceros from head to tail is uſually twelve feet; and the circumference of the body nearly equals that length. Its noſe is armed with ſo hard and formidable a horn that the Tiger will rather attack the Elephant, whoſe proboſcis he can lay hold of, than the Rhinoceros, which he cannot face, without danger of having his bowels torn out by the defenſive weapon of his adverſary. The body and limbs of the Rhinoceros are covered with a ſkin ſo hard and impenetrable, that he fears neither the claws of the Tiger, nor the trunk of the Elephant. It is ſaid to turn the edge of a ſcymetar, and to reſiſt even the force of a muſket-ball. The upper lip of the Rhinoceros is capable of great extenſion, and is ſo pliable, that the animal can move it from ſide to ſide, twiſt it round a ſtick, collect its food, or ſeize with it any thing it would carry to its mouth. The Rhinoceros, without being ferocious, or carnivorous, is totally untractable and rude. It ſeems at times to be ſubject to paroxyſms of fury. The one which the King of Portugal ſent to the Pope in the year 1513, deſtroyed the veſſel which tranſported it. Like the hog, the Rhinoceros wallows in the mire, is a ſolitary animal, and delights to rove near the banks of rivers. It is found in Bengal, Siam, China, and other countries of the Eaſt, where it feeds on the groſſeſt herbs, by preferring thiſtles and ſhrubs to the fineſt of paſturage. The female produces but one at a time, which during the firſt month exceeds not the ſize of a large dog: at the age of two years, the horn is not more than an inch long; at ſix years old, it is 10 inches long; and grows to the length of 3 feet. From the peculiar conſtruction of his eyes, the Rhinoceros can only ſee what is immediately before him. When he purſues any object, he proceeds always in a direct line, overturning every thing in his way. His ſenſe of ſmelling is ſo acute that his purſuers are obliged to avoid being to windward of him. They follow him at a diſtance, and watch till he lies down to ſleep. They then approach, and diſcharge their muſkets into the lower part of his belly.

The BARBARY JACKALL, *(Canis Barbarus.)*

Is about the ſize of our fox, with ſhorter legs; its manners are ſaid to reſemble the common fox.

The PANTHER, *(Felis Pardus.)*

The Panther is an untameable animal, and is next in ſize to the tiger. It inhabits Africa, Barbary, and the remoteſt parts of Guinea; is extremely fierce, and attacks every living creature without diſtinction, but happily prefers the fleſh of brutes to that of mankind. The ancients were well acquainted with theſe animals. The Romans drew prodigious numbers from Africa, for their public ſhews. Scarus exhibited 150 of them at one time; Pompey 410;

and Auguſtus 420. They probably thinned the coaſt of Mauritania of theſe animals; but they ſtill ſwarm in the ſouthern parts of Guinea.—The ſkin of the Panther was preſented by Mr. Polito.

PERSIAN LYNX, *(Felis Coracal.)*

Inhabits Barbary, Perſia, and India, where it is ſometimes tamed for hunting.

The COATI-MONDI, or BRAZILIAN WEASEL, *(Viverra Naſua.)*

It inhabits Brazil and Guiana, runs up trees very nimbly, eats like a dog, and holds its food between its fore legs like a bear.

The CIVET, *(Viverra Civetta.)*

This cat is ſometimes erroneouſly called the Muſk Cat. It is a native of the hotteſt climates of Africa and Aſia; yet it is capable of living in temperate or even in cold countries, if it be carefully defended againſt the injuries of air, and provided with delicate and ſucculent food. The Civet Cat is a wild fierce animal, and feeds on its prey in the ſame manner as the Fox. In Holland they are frequently reared for the ſake of their perfume, which greatly reſembles muſk.—This is produced in a pouch under the tail; and thoſe that keep them for this purpoſe, put them into a long narrow box in which they cannot turn; this box is opened behind twice or thrice a week by the perſon who collects the perfume, who drags the animal backwards by the tail, and keeps it in that ſituation by placing a bar before it, while with a ſmall ſpoon he ſcrapes the odoriferous ſubſtance from the pouch in which it is produced.

The PINE MARTIN, *(Viverra Martis,)* Male and Female.

Theſe are frequent in ſome of the Pine Foreſts in the Northern part of our iſland, and prey on Birds, and other ſmaller animals.

The WHITE, or SEA BEAR, *(Urſus Maritimus.)*

This is a far larger ſpecies than the common Bear, and is ſaid to have been ſometimes found of the length of twelve feet. The head and neck are of a more lengthened form than in the common Bear, and the body itſelf is longer in proportion. The whole animal is white, the ears round and ſmall; the eyes little, and the teeth of extraordinary magnitude: the hair is of great length, and the limbs are extremely large and ſtrong. It ſeems confined to the coldeſt part of the globe; being found within eighty degrees of north latitude, as far as any navigators have yet penetrated. The ſhores of Hudſon's Bay, Greenland, and Spitſbergen, are its principal places of reſidence; but it is ſaid to be carried ſometimes on the floating ice as far ſouth as Newfoundland. The Polar Bear is an animal of tremendous ſtrength and fierceneſs. Barentz, in his voyage in ſearch of a north-eaſt paſſage to China, had proofs of theferocity of theſe animals, in the iſland of Nova Zembla, where they attacked the ſeamen, ſeizing them in their mouths, carrying them off with the greateſt eaſe, and devouring them in the ſight of their comrades. It is ſaid that they ſometimes will attempt to board armed veſſels, at a diſtance from ſhore, and have been repelled with difficulty. The

uſual food of the Bear conſiſts of ſeals, fiſh, and the carcaſes of whales; but when on land, they prey on deer and other animals. They eat alſo various kinds of berries they happen to find. They are frequently ſeen in Greenland in droves, allured by the ſcent of the fleſh of ſeals, and they will ſometimes ſurround the dwellings of the natives, and attempt to break in; and it is added, that the moſt ſucceſsful method of repelling them is by the ſmell of burnt feathers. They grow extremely fat, a hundred pounds of greaſe having been taken from a ſingle beaſt. The fleſh is ſaid to be coarſe, but the ſkin is valued for the coverings of various kinds, and the Greenlanders often wear it as a cloathing. The ſplit tendons are ſaid to form an excellent thread. During the ſummer they reſide chiefly on the ice iſlands, and paſs frequently from one to the other; being expert ſwimmers. They have been ſeen on theſe ice iſlands at the diſtance of more than eighty miles from land, preying and feeding as they float along. They lodge in dens, formed in the vaſt maſſes of ice, which are piled in a ſtupendous manner, leaving great caverns beneath; here they breed, and bring forth one or two at a time. The affection between the parent and the young is ſo great, that they will ſooner die than deſert each other. They follow their dams a long time, and grow to a large ſize before they quit them. During winter they retire, and bed themſelves deep beneath the ſnow, or elſe beneath the fixed mountains of ice, where they paſs in a ſtate of torpidity the long and diſmal Arctic nights, appearing only with the returns of the ſun. The ſkins of the Polar Bear, ſays Pennant, were formerly offered by the hunters in the Arctic regions to the high altars of the cathedrals and other churches, for the prieſt to ſtand on during the celebration of maſs in winter.—Preſented by S. Staniforth, eſq; of Liverpool.

The GLUTTON, (*Urſus Gulo.*)

The YOUNG KANGAROO, (*Didelphis Gigantea, Macropus Major,* Shaw's Zoology.)

Of all the animals which the vaſt iſland or rather continent of Auſtralaſia has preſented to our view, the Kangaroo muſt be conſidered as one of the moſt extraordinary; its ſize, general conformation, teeth, and other particulars, conſpiring to render it a moſt intereſting object to every naturaliſt. The firſt diſcovery of this remarkable quadruped was in the year 1770, when Capt. Cook was ſtationed on the coaſt of New Holland. It is the only quadruped our coloniſts have yet met with in New South-Wales that ſupplies them with animal food. There are two kinds; the largeſt that has been ſhot weighed about 140 lbs. and meaſured from the point of the noſe to the end of the tail 6 feet 1 inch; the tail 2 feet 1 inch; head 8 inches: fore leg 1 foot; hind legs 2 feet 8 inches; circumference of the fore part of the body near the leg 1 foot 1 inch; and of the hind part 3 feet. The ſmaller kind ſeldom exceeds 60lbs. This animal is furniſhed with a pouch ſimilar to that of the opoſſum, in which its young are nurſed and ſheltered. It feeds on graſs and

other vegetable ſubſtances. In their native ſtate theſe animals are ſaid to feed in herds of thirty or forty together; and one is generally obſerved to be ſtationed as if apparently on the watch, at a diſtance from the reſt. One of the moſt remarkable particularities of the Kangaroo is the extraordinary faculty which it poſſeſſes of ſeparating at pleaſure, to a conſiderable diſtance, the two fore teeth in the lower jaw. The Kangaroo may be conſidered in ſome degree as naturalized in England, ſeveral having been kept for many years in the Royal domains at Richmond, which have, during their reſidence there, produced young, and promiſe to render this moſt elegant animal a permanent acquiſition to our country.

KANGAROO RAT, (*Didelphis Tridactyla.*)

This ſpecies, which, from its colour and the general aſpect of its upper parts, has obtained the title of the Kangaroo Rat, is about the ſize of a rabbit: the general ſhape of the animal reſembles that of the Kangaroo, but is far leſs elegant, the proportion of the parts leſs pleaſing, and the hair, which is a duſky cinerous brown, of a coarſer nature. In its teeth it agrees with the Great Kangaroo, except that it has eight inſtead of ſix front teeth in the upper jaw, the two middle ones being ſharp pointed: the fore teeth in the lower jaw are like thoſe of the great Kangaroo as to ſhape and poſition, but are ſmaller in proportion; the grinders are three in number on each ſide both above and below, the foremoſt being fluted or channelled with ſeveral longitudinal ribs; the two remaining ones plain. The ſtructure of the hind feet in this ſpecies reſembles thoſe of the Kangaroo, but the fore feet have only four toes. The female is furniſhed with an abdominal pouch for the reception of the young. Some of this ſpecies were imported in a living ſtate from New Holland, and brought forth young. Its native name is *Poto Roo.*

The WATER SHREW, (*Sorex Fodior.*)

The FŒTID SHREW, (*Sorex Araneus.*)

Young HEDGE HOGS, (*Erinaceus Europeus.*)

The BRAZILIAN PORCUPINE, (*Hyſtrix Prehenſilis.*)

This very curious animal meaſures about two feet ſix inches in length, and is entirely covered, except the tip of the tail, with ſhort ſtrong, and very ſharp ſpines, of which the largeſt is about three inches; it inhabits woods, and climbs trees, in which it is aſſiſted by its prehenſile tail. One of them that was kept alive in an exhibition had an extremely fœtid ſmell.

The AGUTI, or LONG-NOSED CAVY, (*Cavia Aguti.*)

Is a plentiful animal in the warmer parts of South-America, feeds on vegetables, and may be eaſily tamed.

WHITE RAT, (*Mus Decumanus Var.*)

BLACK RAT, (*Mus Rattus.*)

This is the original Britiſh Rat, now nearly extirpated by the Norwegian ſpecies.

A Collection of the various kinds of MICE, found in Great-Briain.

The MARMOT, (*Arctomys Marmota.*)

The Marmot, when taken young, is more capable of being tamed than any other wild animal; it will eaſily learn to perform feats with a ſtick, to dance and obey the voice of its maſter; it bears a great antipathy to the dog, and when it becomes familiar in a houſe, and is certain of being ſupported by its maſter; it will in his preſence attack the largeſt dogs, and boldly faſten on them with its teeth. They are natives of the Alps and Pyrenean mountains, and remain in a torpid ſtate from the end of September to the beginning of April. They live in ſocieties, from five to fourteen in number, in burrows which have ſeveral paſſages conſtructed with great art; the principal apartment at the end is warmly lined with moſs and hay; and it is aſſerted, that this work is carried on by the whole company, that ſome cut the fineſt graſs, others pull it up, others take it in their turn to convey it to the hole; upon this occaſion, it is added, one of them lies on its back, permits the hay to be heaped upon its belly, keeping its paws upright to make room, and in this manner it is dragged, hay and all, to their common retreat. Whenever they venture abroad, one is placed as a centinel ſitting on an elevated rock, while the others amuſe themſelves in the fields below; and no ſooner does he perceive a man, an eagle, a dog, or any other enemy, than he informs the reſt by a kind of whiſtle, and is himſelf the laſt to take refuge in the cell. Theſe animals run much ſwifter up hill than down; they climb trees, and run up the clefts of rocks with great eaſe: indeed it is ludicrouſly ſaid of the Savoyards, who are the general chimney-ſweepers of Paris, that they have learned their trade from the Marmot.

Pair of SQUIRRELS from Ruſſia, (*Sciurus Vulgaris.*)

Theſe vary very little from the common Squirrel of the country.

Pair of JERBOAS. Species not known.

WHITE HARE, (*Lepus Variabilis.*)

This ſpecimen is of a large ſize, perfectly white, except the tips of the ears, which are black. It was received from Ruſſia.

The MUSK ANTELOPE, (*Moſchus Moſcheferus.*)

Till lately the animal that produced the celebrated perfume muſk was very little known to the European naturaliſt. The muſk is contained in an oval receptacle, about the ſize of a ſmall egg, hanging from the middle of the abdomen, and is peculiar to the male animal; it is of ſo powerful and violent a nature when taken freſh, or in quantities put up by the merchants for ſale, that it has been known to force the blood from the noſe, eyes, and ears, of thoſe who have imprudently inhaled its vapours. They are natives of China and Thibet, and muſt be plenty, ſince Tavernier, the celebrated merchant and traveller, aſſures us he had purchaſed in one journey 7673 of theſe muſk bags.

PIGMY ANTELOPE, (*Antetelope Pygmæa.*)

This beautiful and diminutive ſpecies of deer is a native of the hotteſt parts of Africa, and is eaſily tamed, but of ſo tender a nature

as not to bear our climate even with the greateſt care. The height of the full grown animal is only nine inches, yet ſo remarkable are the powers of its activity in its native regions, that it will leap a wall of twelve feet in height. The legs are ſcarcely thicker than a large quill, and are frequently tipped with gold, and uſed as tobacco ſtoppers.

The ZEBRA, (*Equus Zebra.*)

This extremely beautiful animal is a native of the hotter parts of Africa, and is frequently ſeen in herds in the neighbourhood of the Cape of Good Hope; they are however ſo extremely wild and cautious as rarely to be taken, and are of a diſpoſition ſo vicious and untameable as ſeldom to ſubmit to the bridle even when taken quite young. In ſize the Zebra is ſuperior to the aſs; in its form it is much more elegant: the ground colour is white, or cream colour, and the whole animal is decorated with very numerous black or dark brown ſtripes, diſpoſed with the utmoſt ſymetry in a manner not eaſy to be deſcribed.

BIRDS.

——————— Almighty Being,
Cauſe and ſupport of all things, can I view
Theſe objects of my wonder; can I feel
Theſe fine ſenſations, and not think of thee?

KING OF THE VULTURES, *(Vultur Papa.)*

The Vulture is the moſt ravenous of the feathered race, ſince he kills prey not from choice, but in general devours only ſuch animals as are dying, or found dead and putrid. His ſenſe of ſmelling is ſo exquiſite, that he is able to ſcent a dead carcaſe at an amazing diſtance. "They are," ſays Pennant, "greedy and voracious to a proverb; and not timid, for they prey in the midſt of cities, undaunted by mankind." In ſome of the battles of the Eaſt, where vaſt ſlaughter takes place of elephants, horſes, and men, voracious animals crowd to the field from all quarters, of which Jackalls and Vultures are the chief. Even in the places where the laſt are at other times ſeldom obſerved, the plain on theſe occaſions will be found covered with them. Vaſt multitudes will be ſeen in the air deſcending on every ſide to partake in the carnage. Theſe the Indians believe to be brought by having an inſtinctive preſentiment of ſlaughter ſome days before the event. It is obſerved, that Vultures in general become leſs numerous as the climate becomes colder; and that in the more northern countries they are never found. They are undoubtedly a kind diſpenſation of Providence, in the hotter regions, to prevent the putrid effluvia of the dead from too much injuring the health of the living.

Lower Case, No. 13.

GOLDEN EAGLE, *(Falco Chryſaetos.)*
This is one of the largeſt birds of the rapacious tribe; it meaſures from the point of the bill to the extremity of the tail upwards of three feet; it breadth from wing to wing about eight feet; and weighs from 16 to 18lbs. The ſtrength of this noble bird is ſuch, that it can with eaſe carry a lamb; and ſeveral inſtances are recorded of its having carried off children. It is found in various parts of Europe, but abounds moſt in the warmer regions: it has been known to breed in the mountainous parts of Ireland; it lays three, and ſometimes four eggs, of which ſeldom more than two are prolific. Finely preſerved in the act of preying on the white hare of Scotland.

Lower Case, No. 14.

WHITE-TAILED EAGLE, *(Falco Fulvus.)*
Is more numerous than the Golden Eagle, and is very deſtructive to deer, and carries off lambs, pigs, and even children. It builds in precipices and ſea rocks, and is found in moſt parts of Europe, and as far north as Hudſon's-bay.

In the bottom of this caſe is a fine ſpecimen of the Little Bittern.
ARDEA MINUTA, killed in Lancaſhire; alſo, three birds of the Jacana ſpecies, remarkable for the great ſize of their feet, which covers a ſpace conſiderably larger than their bodies, and for the ſpurs with which ſome of their wings are furniſhed.
CHESNUT JACANA, *(Parea Jacana,)* from South-America.
AFRICAN JACANA, *(Parea Africana.)*
INDIAN JACANA, *(Parea Indica.)*

Lower Case, No. 15.

BLACK EAGLE, *(Falco Melanætos.)*
This bird was brought alive from North-America, and appeared more gentle and tractable in its diſpoſition than any of the tribe: it is ſometimes met with in the northern parts of our iſland.
KITE, *(Falco Milvus.)*

Case, No. 16.

HAWKS.

This caſe contains 17 Birds of the rapacious kind, principally inhabitants of this iſland.
1. MOOR BUZZARD, *(Falco Ærugenoſas.)*
2. COMMON BUZZARD, *(Falco Buteo.)*
3. PERIGRENE FALCON, *(Falco Peregrinus.)*

4. RING-TAIL, *(Falco Pygargus.)*
5. HEN HARRIER, *(Falco Cyaneus.)*
This and the laſt are now proved to be male and female.
6. KESTREL, *(Falco Tinnunculus.)*
7. KESTREL, female.
8. SPARROW-HAWK, *(Falco Niſus.)*
9. HOBBY, *(Falco Subbutio.)* Killing a leveret.
10. Two HOBBIES fighting, beautifully preſerved.
11. MERLIN, *(Falco æſalon.)*
12. DOMINGO FALCON, *(Falco Dominicencis.)*
Is one of the ſmalleſt and moſt beautiful of the hawks.
13. DOMINGO HAWK, female.
14 and 15. Names unknown.

Case, No. 17.

This caſe contains 50 birds of the Shrike or Butcher Birds, *(Lanius,)* the Groſbeak, *(Loxia,)* and the Goatſucker, *(Caprimulgus)* tribes, all of which are named according to the ſyſtem of Linnæus.

Case, Nos. 18 *and* 19.

PARROTS.

This caſe contains a numerous and elegant diſplay of the Parrot tribe, conſiſting of about 60 ſpecies of Maccaws, Cockatoos, Lories, Parrots, and Parrakeets, of the moſt ſplendid and beautiful plumage, properly arranged and named.

Of all foreign birds, the Parrot is beſt known in this country, and is moſt admired; nor without reaſon, as it unites the greateſt beauty with the greateſt docility. Its voice more exactly reſembles the human than that of any other bird, and is capable of numerous modulations, which even the tones of man cannot reach. The facility with which this bird is taught to ſpeak, and the degree of memory that it poſſeſſes, are not a little ſurpriſing. So numerous are the ſtories reſpecting the loquacious faculty of the Parrot, that they would fill a volume. Parrots are uncommonly numerous in the tropical climates: the foreſts ſwarm with them, and the beauty of their plumage, though not their natural voice, adds a degree of vivacity to the loveliеſt of ſcenes. Though the Parrot is commonly domeſticated in Europe, it will not breed here on account of the cold. It indeed can ſurvive our cold winter; but its ſpirits and appetites are both viſibly affected by ſevere weather. It then becomes torpid and inactive, and ſeems quite changed from that buſtling bird which it appears beneath a more genial ſky. Nevertheleſs, with proper attention, it will live a number of years under the protection of man. The extreme ſagacity and docility of this bird

forms the only apology that can be made for the time which is ſpent in teaching it to talk. At firſt it obſtinately reſiſts all inſtruction, but ſeems to be won by perſeverance; makes a few attempts to imitate the firſt ſounds; and, when it has once acquired the articulation of one word diſtinctly, the reſt of the leſſon is generally learned with great eaſe. The ſagacity and docility, however, which Parrots ſhew in a domeſtic ſtate, ſeems alſo natural to them in their reſidence among the woods. They live together in flocks, and mutually aſſiſt each other againſt their enemies, either by their courage, or their notes of warning. They breed in the hollows of trees, where they make their neſts. The larger kinds lay only two or three eggs; but it is probable that the ſmaller ones lay more. The natives are very aſſiduous in finding out the places where they neſtle, for the purpoſe of procuring the young; becauſe thoſe prove the moſt teachable and lively which are reared in confinement. Indeed, the Indians are not anxious to poſſeſs theſe birds for their talking alone, for ſale, or for their beauty, but alſo for food; ſince, though ſome are ill-taſted, others are very delicate eating, particularly the parrakeet kind. Numerous as the ſpecies are, and widely as they are diſſeminated over Aſia, Africa, and America, yet it appears that they were not very generally known to the Greeks. The green Parrakeet with a red neck was the firſt of this family imported into Europe: for Oneſicrites, the conductor or admiral of the fleet of Alexander the Great, brought them from the Iſland of Taprobane. They were indeed ſo new and uncommon, that Ariſtotle, in his 8th book of animals, ſeems not to have ſeen them, and mentions them only from report; for he ſays, "there is an Indian bird, called the *Pſittace*, which is ſaid to ſpeak." The beauty of theſe birds made them however objects of luxury among the Romans, who lodged them in cages of ſilver, or ſhells, and of ivory; and the price of a parrot often exceeded that of a ſlave. To enumerate what number of diſtinct ſpecies of theſe birds have already been diſcovered, would be impoſſible, ſince our veſſels from New-Holland and the Southern Iſlands, are daily adding new ones to this extenſive and beautiful genus.

Case, No. 20.

TOUCANS and HORNBILLS.

WHITE-THROATED TOUCAN, (*Ramphaſtos Toco.*)

The bill of this curious bird is of a moſt uncommon ſize, being nearly as large as the whole body, which gives the bird ſomewhat the appearance of having thruſt its head into the claws of a large lobſter; this extraordinary freature is ſeven inches and a half long, and ſeven in circumference; it is extremely ſlight, and as thin as parchment. This bird, ſo formidable in appearance, is quite harmleſs and gentle; it feeds principally on pepper, which it devours very greedily, gorging itſelf in ſuch a manner, that it voids it crude and

inconcocted; this, however, is no objection to the natives uſing it again. They even prefer it to that which is freſh gathered from the tree; and ſeem perſuaded that the ſtrength and heat of the pepper is qualified by the bird, and that all its noxious qualities are thus exhauſted. It is a native of South America.

THE PIPERINE TOUCAN, (*Ramphaſtos Piperivorus.*) Male and female.

ARACARI TOUCAN, (*Ramphaſtos Aracari.*)

Is a native of South-America, remarkable for the great ſize of its bill, as well as the beauty of colour.

YELLOW-BREASTED TOUCAN, (*Ramphaſtos Tucanus.*)

Inhabits South-America; habits ſimilar to the laſt.

THE BRAZILIAN MOMOT, (*Momotus Braſilienſis.*)

This beautiful and remarkable bird is about 18 inches long, though the body is not larger than that of a thruſh: it inhabits unfrequented foreſts, building its neſt on the ground, or in holes abandoned by the Armadillo, and lays two eggs; feeds on inſects, the fragments of which it macerates in water.

THE AFRICAN HORN-BILL, (*Buceros Africanus.*)

Of all the various forms which are met with in the heads of animals, thoſe of the Horn-bill appear the moſt extraordinary; to the enormous bill of the Toucans, nature has added a ſtill larger projection from the forehead along the upper mandible, the preciſe uſe of which has baffled the reſearch of the moſt attentive naturaliſt. Sixteen different ſpecies of this bird are enumerated by travellers and writers, the heads of many of which are preſerved in this collection.

PIED HORNBILL, (*Buceros Malabaricus.*)

Case, No. 21.

Contains 20 Orioles, 11 Thruſhes, 14 Woodpeckers, and 5 Nuthatchs, with the vulgar and Linnæan names to each.

The Orioles are chiefly natives of America, where, by their prodigious numbers, and their voracity, they do great injury to the plantations of corn: many of the ſpecies build pendulous neſts, ſuſpended at the extreme ends of the branches of trees, with the entrance either at the bottom or ſide.

The various ſpecies of Thruſhes are found diſperſed over almoſt every part of the globe; they feed on inſects and fruit. They are not remarkable for their gaudy or brilliant plumage, but make ample amends by the richneſs of their melody. One ſpecies, the MOCKING BIRD of America, (*Turdus Polyglottus,*) deſerves particular notice. Without any exterior attractions, it poſſeſſes faculties which render it one of the greateſt objects of curioſity and admiration among the feathered tribes. It is about the ſize of a thruſh. Its natural notes are muſical and ſolemn; but it likewiſe poſſeſſes the ſingular power of aſſuming the tones of every other animal, whether quadruped or bird. It ſeems to divert itſelf with alternately alluring or terrifying

other birds, and to ſport with their hopes and their fears. Sometimes it entices them with the call of their mates, and on their approach terrifies them with the ſcreams of the eagle, or ſome other bird of prey. It frequents the habitations of mankind, and is eaſily domeſticated. It builds its neſt in the fruit trees, near the houſes of the planters; and ſitting, ſometimes moſt of the night on the tops of their chimnies, aſſumes its own native melody, and pours forth the ſweeteſt and moſt varied ſtrains. The ſavages call it *Cencontlatolli*, or Four Hundred Languages. It is found in Carolina, Jamaica, New Spain, &c. In Jamaica it is very common in the Savannahs, where it perches on the higheſt tree to chant its ſong. Its fleſh is eſteemed excellent. The one in this collection was kept alive ſome time by the Proprietor of this Muſeum.

The Woodpeckers are of conſiderable ſervice to mankind in deſtroying great numbers of inſects, in ſearch of which they climb up and down trees, and transfix and draw them out of the clefts of the bark by means of their tongue, which is bony and barbed, and furniſhed with a curious apparatus of muſcles for throwing it forwards with great force. They build in the hollows of decayed trees, which they perforate with their hard wedge-like bill.

Case, No. 22.

BIRDS OF PARADISE.

GREATER BIRD of PARADISE, (*Paradiſea Apoda.*)

No birds have perhaps more puzzled the Naturaliſt than thoſe which are termed Birds of Paradiſe. They have been deſcribed as the inhabitants of the air, never reſting on the earth, and living on the dews of heaven. Others have aſſerted that they live on inſects; while ſome have inſiſted that they have no legs; others again contend, that they have not only ſtrong and large legs, but that they are birds of prey. But the fact is, that the inhabitants of the Molucca iſlands perceiving the inclination the Europeans have to obtain theſe birds, and at the ſame time taking advantage of their credulity, originally practiſed many deceits in order to enhance their value. Error however is not of very long duration; and in the preſent inſtance, it was at length diſcovered, that theſe birds had not only legs, but that they were ſo diſproportionably large, that they took away a conſiderable ſhare of the eleganee of the birds; on this account it is not improbable they were deprived of them by the iſlanders. Buffon, in his hiſtory of birds, ſays, this beautiful bird is not much diffuſed: it is in general confined to that part of Aſia which produces the ſpiceries, and eſpecially the iſlands of *Arou*. It is known alſo in the part of New-Guinea oppoſite to thoſe iſlands; but the name which it there receives, *Burung Arou*, ſeems to indicate its natal ſoil. The Bird of Paradiſe is ſuppoſed to ſubſiſt on the aromatic productions of

theſe iſlands, at leaſt it does not live ſolely on dew. Linnæus ſays, it feeds on large butterflies; and Bontius, that it ſometimes preys upon birds. Its ordinary haunt is in the woods, where perching in the trees, the Indians watch it in ſlender huts, which they attach to the branches, and ſhoot it with their arrows of reeds. The ancients ſeem to have been totally unacquainted with the Bird of Paradiſe. Belon pretends that it was the Phœnix of antiquity; but his opinion is founded on the fabulous qualities of both. The Phœnix, too, appeared in Arabia and Egypt, while the Bird of Paradiſe has remained always attached to the oriental parts of Aſia, which were very little known to the ancients.—The extreme elegance of the tail feathers of this bird have made them expenſive articles of female decoration.

KING BIRD of PARADISE, (*Paradiſea Regia.*)

This ſuperb bird is uſually called the King of the Birds of Paradiſe; but this appellation is drawn from fabulous accounts. Cluſius was informed by the mariners, from a tradition which prevailed in the eaſt, that each of the ſpecies of the Birds of Paradiſe had its leader, whoſe royal mandates were received with ſubmiſſive obedience by a numerous train of ſubjects: that his majeſty always flew above the flock, iſſued orders for inſpecting and taſting the ſprings, where they might drink with ſafety. It inhabits the iſlands of the Indian Ocean, and returns to New Guinea in the rainy ſeaſon; feeds on berries, is a ſolitary bird, and is highly valued on account of its rarity and beauty of plumage.

GOLDEN BIRD of PARADISE, (*Latham's Synopſis*, vol. 1, p. 483.)

BLACK BIRD of PARADISE, (*Paradiſea Furcatis.*)

RUFF-NECKED BIRD of PARADISE.

This beautiful and uncommon Bird, which does not appear to be deſcribed by any Engliſh writer, is, like the others, a native of the Molucca Iſlands, but is a rarity even in that country; the plumes being worn only by perſons of the firſt rank; the whole of the head, neck, body, and tail, is a fine black, with a velvety gloſs, the latter changing in ſome lights to a rich purple. The bill is long, black, and ſomewhat hooked; the feathers under the lower mandible reaching a conſiderable part of its length from the back of the neck, riſes a divided tuft of long, thick, cloſe-ſet black feathers, edged with reſplendent emerald green; from the ſides of the body and wings riſe two tufts of long delicate ſilky feathers, as in the common Bird of Paradiſe, only ſmaller, ſix on each ſide of which have ſtrong black wirelike terminations, about nine inches long, deſtitute of every appearance of feathers.

The GRAND HOOPOE. (*Latham's Synopſis*, vol. 2, page 695.) (*Le Grand Promerops à paremens friſés*, Buffon, vol. 4, page 472.)

This magnificent bird is thus deſcribed by Mr. Latham: "This "moſt extraordinary and beautiful bird is near four feet in length "from the tip of the bill to the end of the tail: the body is the ſize "only of a middling pigeon, though much elongated in ſhape. The "bill is three inches long, pretty much curved, and black; the head,

" hind part of the neck, and upper part of the belly, are of a ſhining " green; the reſt of the plumage, on the upper parts, black, mixed " with a gloſs of changeable violet, but the wings, in ſome lights, ap- " pear blue; the fore part of the neck, and lower part of the belly, " without gloſs. The ſcapular feathers are of a ſingular conſtruction, the " webs on one ſide of the ſhaft being exceeding ſhort, and on the " other of a great length; the ſhape of them falciform; they are of " a purpliſh black colour, with the ends for three-quarters of an inch " of a moſt brilliant gilded gloſſy green, though ſome of them, in " a different light, reflect a blue gloſs; beneath each wing ariſes a " thick tuft of feathers eight inches and a half in length, and of a " texture reſembling the herring-bone ones in the greater Bird of " Paradiſe; and beſides theſe, on each ſide of the tail are five or ſix " falciform feathers, with unequal webs, as the ſcapulars, though " not half ſo much curved; the colour half duſky, half greeniſh " brown; the laſt divided from the other colours, on each feather, in " in an oblique manner. The tail conſiſts of twelve feathers, and is " of an enormous length, the middle ones meaſuring no leſs than " twenty-eight inches; but each of the others ſhortens as it pro- " ceeds outwards to the outward one of all, which is only five " inches in length; the colour of all of them is blue-black, with a " poliſhed steel gloſs in ſome lights; the legs are black."

The HOOPOE, (*Eupupa Epops.*)

Remarkable for the beautiful creſt which adorns its head: it is ſometimes ſhot in England.

Case, No. 23.

In this Caſe are about fifty Birds of the moſt beautiful and rare kinds, conſiſting of TROGONS, CUCKOOS, KING-FISHERS, BEE-EATERS, CHATTERERS, and MANAKINS; which altogether form ſuch an elegant diſplay of the rich and various hues of the feathered tribe, as is rarely to be met with. As even the names alone of every bird in this collection would exceed the limits of an ordinary catalogue, and afford no inſtruction to the reader, we ſhall juſt point out the moſt remarkable.

The RED-BELLIED TROGON, (*Trogon Curucui.*)

Lives ſolitary in the thickeſt woods of New Spain and Peru. It builds in hollow trees, and lays twice a year three or four eggs, equal in ſize to thoſe of a pigeon.

The CUPREOUS CUCKOO, (*Cuculus Cupreus.*)

Is an inhabitant of the hotteſt parts of Africa, where it is rare; the rich metallic gloſſy grey with which the head and whole upper parts are covered can only be equalled by the glowing tints of the humming bird.

KING-FISHER, male and female, (*Alcedo Iſpida.*)

The Greeks celebrated this bird by the name of *Alcyon*, or *Halcyon*; the epithet *Alcyonian* was applicable by them to the four days before and after the winter ſolſtice, when the ſun ſhone brilliant, the ſky ſerene, and the ſea ſmooth and tranquil. It was then the timorous mariners of antiquity ventured to loſe ſight of ſhore, and ſhape their courſe on the glaſſy main. The King-Fiſher is the moſt eſteemed of Britiſh birds for the brilliancy of its colours. It neſtles on the banks of rivers and brooks, in holes made by water-rats. Geſſner obſerves, that it can never be tamed, and that it is always wild. Its fleſh has the odour of baſtard muſk, and is very unpalatable food; its fat is reddiſh; its ſtomach roomy and flaccid, as in birds of prey; and like them too, it diſcharges by the bill the undigeſted fragments, ſcales, and bones, rolled into little balls.

EUROPEAN BEE-EATER, (*Merops Apiaſter.*)

This beautiful bird is a native of many of the warmer parts of Europe, but is rarely ſeen in the Britiſh dominions. It is extremely common in Greece, and the iſlands of the Archipelago; and in Crete is more plentiful. It is in this latter iſland that the curious mode of bird-catching deſcribed by Bellonius, is ſaid to be frequently practiſed with ſucceſs, viz. a cicada is faſtened on a bent pin, or a fiſh-hook, and tied to a long line. The inſect, when thrown from the hand, aſcends into the air, and flies with rapidity; the Merops, ever on the watch for inſects, ſeeing the cicada, ſprings at it, and ſwallowing the bait, is thus taken by the Cretan boys. The Bee-Eater builds in the banks of rivers, and forms its neſt of moſs.

The colours of the various ſpecies of CHATTERERS, (*Ampelis,*) are the moſt vivid and various that can be conceived; every tint that can be found in the production of Nature combine to decorate this beautiful tribe; they are principally found in the warmer parts of South-America.

The MANAKINS, (*Pipra,*) are likewiſe, in general, of ſplendid plumage; the moſt remarkable of which is the Cock of the Rock, or Creſted Manakin, (*Pipra Rupicoa.*) Though this bird is of an uniform orange colour, it is one of the moſt beautiful of South-America. They are found in great numbers on the mountain Luca, near Oyapoc, and on the mountain Courouaye, near the river Aprouack. They are eſteemed for the ſake of their plumage, and are very ſcarce and dear; becauſe the ſavages, either from ſuperſtition or fear, will not venture into the dark caverns where they lodge.

Case, No. 24.

HUMMING BIRDS.

Say who can paint
Like Nature? Can Imagination boaſt,
Amid her gay creation, hues like theſe? THOMSON.

This caſe contains near ſeventy various HUMMING BIRDS; ſuch as are known have their names in the order they ſtand in the ſyſtem of Linnæus. Of all animated beings, (ſays Buffon,) the Fly Bird is the moſt elegant in form, and ſuperb in colours. The precious ſtones poliſhed by art cannot be compared to this jewel of nature. Her miniature productions are ever the moſt wonderful; ſhe has placed it in the order of birds, at the bottom of the ſcale of magnitude; but all the talents that are only ſhared amongſt the others, ſhe has beſtowed profuſely on this little favourite. The emerald, the ruby, and the topaz, ſparkle in its plumage, which is never ſoiled by the duſt of the ground. It is inconceivable how much theſe brilliant birds add to the high finiſh and beauty of the weſtern landſcape. No ſooner is the ſun riſen, than numerous kinds are ſeen fluttering abroad: their wings are ſo rapid in motion, that it is impoſſible to diſcern their colours, except by their glittering; they are never ſtill, but continually viſiting flower after flower, and extracting the honey. For this purpoſe they are furniſhed with a forked tongue, which enters the cup of the flower, and enables them to ſip the nectared tribute; upon this alone they ſubſiſt. In their flight they make a buzzing noiſe, not unlike a ſpinning-wheel; whence they have their name.

The Neſts of theſe birds are not leſs curious than their form: they are ſuſpended in the air at the extremity of an orange branch, a pomegranate, or a citron tree, and ſometimes even to a ſtraw pendant from a hut, if they find one convenient for the purpoſe. The female is the architect, while the male goes in queſt of materials, ſuch as fine cotton, moſs, and the fibres of vegetables. The neſt is about the ſize of half a walnut. They lay two eggs at a time, and never more, in appearance like ſmall peaſe, as white as ſnow, with here and there a yellow ſpeck. The time of incubation continues twelve days, at the end of which the young ones appear, being then not larger than a blue-bottle fly. "I could never perceive," ſays Father Dutertre, "how the mother fed them, except that ſhe preſented the tongue covered entirely with honey extracted from "flowers." Thoſe who have tried to feed them with ſyrups could not keep them alive more than a few weeks; theſe aliments, though of eaſy digeſtion, are very different from the delicate nectar collected from the freſh bloſſoms. It has been alleged by various naturaliſts, that during the winter ſeaſon they remain torpid, ſuſpended by the bill from the bark of a tree, and awakened into life when the flowers begin to blow; but theſe fictions are rejected, for Cateſby ſaw them

through the year at St. Domingo and Mexico, where Nature never entirely loſes her bloom. Sloane ſays the ſame of Jamaica, only that they are more numerous after the rainy ſeaſon; and prior to both, Marcgrave mentions them as being frequent the whole year in the woods of Brazil. The method of obtaining theſe minute birds is to ſhoot them with ſand, or means of the trunk-gun; they will allow one to approach within five or ſix paces of them. It is eaſy to lay hold of the little creature while it hums at the bloſſom. It dies ſoon after it is caught, and ſerves to decorate the Indian girls, who wear two of theſe charming birds, as pendants from their ears. The Indians, indeed, are ſo ſtruck and dazzled with the brilliancy of their various hues, that they have named them *the Beams* or *Locks of the Sun*. Such is the hiſtory of this little being, who flutters from flower to flower, breathes their freſhneſs, wantons on the wings of the cooling zephyrs, ſips the nectar of a thouſand ſweets, and reſides in climes where reigns the beauty of eternal ſpring.

Lower Case, No. 25.

BLACK SWAN, (*Anas Atrata,*) from New Holland, from whence they are frequently brought alive.

An undeſcribed Water Bird, nearly allied to the Duck tribe, from New Holland, preſented by Dr. Munro, of Edinburgh.

Size rather leſs than the common, general colour lightiſh brown, lighter on the neck and wings, tail and tips of the wings black, and crown of the head white; bill, ſhort, hooked, much compreſſed at the ſides, black, with a yellow mark above the noſtrils, which are large, round, and placid about the middle of the bill; legs red, feet black, with very large joints, claws remarkably ſtrong and ſharp, bearing a greater reſemblance to thoſe of the rapacious tribe than the aquatic; on each of the greater wing coverts is a circular ſpot of dark brown.

Lower Case, No. 26.

Contains twelve ſpecies of DUCKS, of the rareſt kinds; among the moſt conſpicuous is the MANDARIAN TEAL, (*Anas Galericulata,*) remarkable for its beautiful colours, and the ſail-like feathers that riſe from the back.

Lower Case, No. 27.

WHITE PELICAN, (*Pelicanus Onocratolus.*)

The Pelican of Arabia is nearly the ſize of a ſwan, and is of a pale roſe or fleſh colour; its bill is near twenty inches long, and is ſur-

niſhed at the end with a ſharp hook, with which the ancients believed it pierced its breaſt, in order to procure blood for the ſuſtenance of its young. To the under mendible is attached a ſtrong bag or pouch, which is capable of diſtending in ſuch a manner, as to hold from 12 to 15lbs. of fiſh.

The birds of this claſs are furniſhed with a web more on each foot than any other of the feathered tribe. They ſwim and dive with great agility, and may be tamed and inſtructed ſo as to render an eſſential ſervice to their poſſeſſor, by their facility in fiſhing.

ROSE-COLOURED SPOONBILL, (*Platalia Ajaja.*)

This ſingular bird is a native of South-America.

Lower Case, No. 28.

Four ſpecimens of the GANNET, or SOLAND GOOSE, (*Pelicanus Baſſanus.*)

No. 1, is a full-grown bird, arrived at its laſt plumage, which it does on the third year. No. 2, a two-years-old bird, with its black and white plumage. No. 3, about ten days old, covered with white down. No. 4, as they are excluded from the egg, without either down or feathers. Theſe birds were taken in Auguſt 1807, on the Baſs Iſland, at the entrance of the Frith of Forth, where many thouſands of them breed annually, and with the various kinds of ſea-fowl that likewiſe reſort in vaſt multitudes to that ſtupendous rock, for the purpoſe of rearing their young, form one of the moſt ſublime ſpectacles to the eye of an Ornithologiſt that can be well conceived. The Gannet lays but one egg, which is a dirty white colour, of a lengthened form, and which, during the time of incubation, the female covers entirely with her foot.

Lower Case, No. 29.

Pair of CROWNED AFRICAN CRANES, (*Ardea Pavonia.*)

Theſe owe their title of Royal to a ſort of crown which decorates its head. It inhabits Africa, eſpecially Gambia, the Gold Coaſt, and Cape Verd. It is of a gentle and pacific diſpoſition; its defence is its ſtature, and the rapidity with which it runs and flies. It is leſs afraid of man than of its other enemies; we are aſſured, that at Cape Verd theſe birds are half domeſticated, and that they come into the court-yards to eat grain with the Guinea fowls. Their cry is like the peacock's. The Portugueſe, in the 15th century, it is ſuppoſed, were the firſt people that brought theſe birds into Europe, at the time they diſcovered the Gold Coaſt.

In the bottom of this caſe is the BULL FROG of AMERICA, (*Rana Maximæ.*)

Case, No. 30.

No. 1. Honey-Sucking HUMMING BIRD, (*Trochilus Mellifugus.*)

This minute bird is placed in this caſe, as a contraſt to the ſuperb Argus Pheaſant.

1. A.—Smalleſt PIGEON, (*Columba Afer.*)

2. COCOTZIN, or GROUND DOVE, (*Columba Paſſerina.*)

We retain the name Cocotzin given by Fernandez, becauſe the bird on which it was beſtowed ſeems to differ from all others; and as it is ſmaller than the common turtle, many naturaliſts have called it the little turtle. It is found through all the ſouthern parts of the New World, and ſometimes advances to the coaſt of Carolina, where it feeds on berries, eſpecially thoſe of the pellitory.

3. BRONZE-WINGED PIGEON, (*Columba Chalcoptera.*) Inhabits Norfolk Iſland, &c.

4. CROWNED PIGEON, (*Columba Coronata.*)

The gigantic ſize of this ſpecies, which is not far ſhort of a turkey, has cauſed ſome naturaliſts to place it rather among the gallinaceous tribe than in the genus Columba. Its characters are however ſo clearly and deciſively marked, as to declare at once its proper genius. It is undoubtedly one of the moſt elegant of birds, and is a native of the Molucca Iſlands. Its voice reſembles that of the wood pigeon, but in ſo loud and hoarſe a tone, that it is recorded by ſome of Monſ. Bougainville's ſailors, that they were greatly alarmed on hearing it for the firſt time in the unfrequented ſpots of ſome iſlands on which they landed; ſuppoſing it to have preceded from the ſavage cries of hoſtile and concealed natives. This bird is frequently brought to Europe alive, and is conſidered as one of the greateſt ornaments of the menagerie. The above bird, when living, was many years in the poſſeſſion of her preſent Majeſty, who preſented it to the Leverian Muſeum.

5. RED-LEGGED PARTRIDGE, (*Tetrao Rufus.*)

This Partridge is found in moſt of the temperate and mountainous countries of Europe, Aſia, and Africa. It is ſeldom ſeen in England.

BOTANY-BAY BIRD of PARADISE, (*Menura Superba.*)

In the ſixth volume of the Linnæan Tranſactions, this highly ſingular bird is mentioned as a non-deſcript; it is found in the hilly parts of the country of New South-Wales, where the inhabitants call it the Mountain Pheaſant.

ARGUS PHEASANT, or LUEN, (*Phaſianus Argus.*)

This ſuperb and majeſtic bird was firſt deſcribed by Edwards, in the 55th volume of the Philoſophical Tranſactions, who ſays, "It "is the largeſt of the pheaſant genus yet known, being in ſize equal "to a full-grown turkey. The wings and tail are beſprinkled with "a multitude of round ſpots like eyes; whence it has received the "name of *Argus*. The feathers in the middle of the tail are very "long, and project much beyond the reſt: its head is covered with a

" double creſt. It has been doubted, whether this bird had not origi-
" nally more than two long tail-feathers ; this, however, on exami-
" tion of the rump, ſeems never to have been the caſe." Mr. Pennant deſcribes it as having ſpurs like the common cock, but this alſo appears to be an error; for this bird, although a male, and of full growth, has not the ſlighteſt appearance of them. This extraordinary bird, with its wings extended, meaſures eighteen feet in circumference. It is a native of the North of China.

Lower Case, No. 31.

GAME OF SCOTLAND.

Pair of RED GROUSE, (*Tetroa Scoticus.*)
Pair of the BLACK GROUSE, (*Tetroa Tetrix.*)
Pair of the PTARMIGAN, (*Tetroa Lagopus.*)
The WHITE HARE, (*Lepus Variabilis.*)

This ſpecies is found on the northern hills of Europe, Aſia, and America, from whence in the winter they migrate to the plains in troops, and return in ſpring. The limbs and tail are ſhorter than the common hare; they change for a reddiſh grey to white in the winter, except the tips of the ears, which are black.

Case, No. 32.

In this caſe are upwards of ſeventy birds, of the BUNTING, (*Emberiza,*) FINCH, (*Fringilla,*) and WARBLER (*Motacilla*) tribes. Among the moſt remarkable of the firſt is the WHIDAH BIRD, (*Emberiza Paradiſea,*) which, though not larger than a common ſparrow, has ſeveral long black feathers in its tail reſembling that of the domeſtic cock: they are natives of Africa, and change their plumage twice a year, being in winter, without the extraordinary and cumbrous tail, and in appearance quite another bird.

The LONG-TAILED BUNTING, (*Emberiza Vidua.*)

Is leſs than the ſparrow, and is alſo a native of Africa; its general appearance is plain, and not remarkable except the tail; the middle tail-feathers are twelve inches long, which till near the end are without webs.

The PAINTED BUNTING, male and female, (*Emberiza Ciris.*)

The beautiful plumage of this bird, Nature requires ſome time to form, nor is it completed before the third year. The young ones are brown the firſt year; in the ſecond, their head is of a vivid blue, the body greeniſh blue, and the wings and tail brown edged with greeniſh blue. Theſe birds breed in Carolina on the orange trees, but do not continue there during the winter.

In this caſe is alſo the neſt of the above bird.

The AMERICAN BLUE ROBIN, (*Motacilla Sialis.*)

In ſhape this exactly reſembles our robin, but the head and back is a bright ultramarine blue.

NIGHTINGALE, (*Motacilla Luſcina.*)

This bird, ſo deſervedly eſteemed for its ſong, is not remarkable for the variety or richneſs of its plumage. The Nightingale, though common in this country, never viſits the northern parts of our iſland, and is ſeldom ſeen but in the neighbourhood of London, and the weſtern counties. The following deſcription of the varied ſong of this unrivalled bird is taken from the ingenious author of the *Hiſtoire des Oiſeaux:* " the leader of the vernal chorus begins with a low and " timid voice, and he prepares for the hymn to nature by eſſaying his " powers and attuning his organs; by degrees the ſound opens and " ſwells, it burſts with loud and vivid flaſhes, it flows with ſmooth " volubility, it faints and murmurs, it ſhakes with rapid and violent " articulations; the ſoft breathings of love and joy are poured from " its inmoſt ſoul, and every heart beats uniſon, and melts with deli- " cious langour. But this continued richneſs might ſatiate the ear : " the ſtrains are at times relieved by pauſes, which beſtow dignity and " elevation. The mild ſilence of the evening heightens the general " effect, and not a rival interrupts the ſolemn ſcene." They begin to build in May.

Birds in ſeparate Caſes, not numbered, but each having a reference to the page in this Catalogue in which they are deſcribed.

SHORT-EARED OWL, (*Stria Brachyotos.*)

This is a rare ſpecies in England, viſiting it the latter end of the the ſummer, and departing again in ſpring.

INDIAN HORNED OWL, (*Strix Indica.*)

Only ſeven inches long; the ſmalleſt known owl.

The SNOWY OWL, (*Strix Nyctea.*)

This beautiful bird is a native of the northern parts of Europe, America, and Aſia. It flies by day, and feeds on herons, hares, &c.; it attains almoſt the ſize of the eagle, and in winter is ſnow white.

The COMMON OWL, (*Strix Flammea,*) with its young.

TAWNY OWL, (*Strix Stridula.*) This is a Britiſh ſpecies.

LITTLE OWL, (*Strix Paſſerina.*)

The ſmalleſt of the Britiſh Owls, being not much larger than a blackbird; it builds in fir trees.

CHANNELL BILLS, (*Scythrops Pſittaceus.*)

Theſe have not been long known to naturaliſts: they are natives of New South-Wales, are the ſize of a crow, but from the length of the tail meaſure two feet two inches long.

HOODED CROW, (*Corvus Cornix.*)

Brown variety of the ROOK, (*Corvus Frugilegus, Var.*) Shot near Liverpool.

The MAGPIE, (*Corvus Pica.*)
MINOR GRAKLE, (*Gracula Religioſa.*) Native of Carolina.
BOAT-TAILED GRAKLE, (*Gracula Barita.*)
LONG-BILLED GRAKLE, (*Gracula Longiroſtra.*) It inhabits South-America.
COMMON CUCKOO, (*Cuculus Canorus.*)
RAIN CUCKOO, (*Cuculus Vetula.*)
Native of Jamaica, where it is ſaid to ſing before rain.
MINDANAO CUCKOO, (*Cuculus Mindanenſis.*)
HORNED BEE-EATER, (*Merops Corniculatus.*)
VELVET DUCK, (*Anas Nigra.*)
BERNACLE GOOSE, (*Anas Erythropterus.*)
This is a native of this country, and is the one that gave riſe to the ridiculous belief that it was produced on a tree.
Pair of SHOVELLERS, (*Anas Clypeata.*)
WIDGEON, (*Anas Penelope.*)
Pair of the LONG-TAILED DUCKS, (*Anas Glacialis.*)
RED-HEADED WIDGEON, (*Anas Ferina.*)
Pair of SHELDRAKES, (*Anas Tadorna.*)
The GARGONY, (*Anas Querquedula.*) A rare Britiſh ſpecies.
COMMON TEAL, (*Anas Crecca.*)
GOOSANDER, (*Mergus Merganſer.*) Shot in Scotland.
DUN DIVER, (*Mergus Caſtor.*)
SMEEW, (*Mergus Albellus.*)
The PUFFIN, or COULTERNEB, (*Alca Arctica.*)
It is not eaſy to deſcribe the bill of this odd-looking animal, the coulter of a plough may furniſh the beſt idea of its ſhape: it is flat, but very different from that of a duck; its edge is upwards, very broad at the baſe, but ending in a ſharp point. When the Puffin prepares for building, which is a few days after its arrival on our coaſts, it begins by ſcraping a hole, not far from the ſea ſhore, and when it has penetrated the earth a little, it throws itſelf upon its back, and with bill and claws thus burrows inwards, till it has dug a hole in the ground, with ſeveral windings, near ten feet deep; in this fortified place it lays one egg. Though this bird is very little larger than a pigeon, its egg is about the ſize of that of a hen's.
LITTLE AUK, (*Alca Alle.*) A rare Britiſh bird.
PATAGONIAN PENGUIN, (*Aptenodytes Patachonica.*)
This highly curious bird ſeems to form the connecting link between the feathered and ſcaly race. It is upwards of three feet in height; its fin-like legs being placed at the extreme end of its body, it can ſtand in no poſition but quite upright; in place of wings, it has two dangling flaps, which when in the water ſerve as fins, but are of no uſe on ſhore, as it is totally incapable of flight; it ſeldom comes to land, but for the purpoſe of depoſiting its eggs, and is then ſo eaſily taken, that Capt. Cook ſays, a man might kill with a ſtick in a few hours as many as would load a large boat.
LITTLE PENGUIN, (*Aptenodytes Minor.*) Inhabits New Zealand.

STORMY PETREL, (*Procellaria Pelagica.*)
This bird reſembles the Chimney Swallow in its general appearance, and in the ſwiftneſs of its flight: it is met with by mariners on every part of the ocean, but is always an unwelcome viſiter, as a ſtorm is ſoon expected after its appearance. They run on foot or ſkim over the ſurface of the heavy rolling waves of the moſt tempeſtuous ſea quite at eaſe, and yet it ſeems to foreſee and fear the coming ſtorm long before the ſeamen can diſcover the leaſt appearance of its approach.
The SNOWY PETREL, (*Procellaria Nivea.*)
SHAG, (*Pelicanus Graculus.*)
TUFTED SHAG of the BASS.
Two of theſe birds, both females, were ſhot by their preſent poſſeſſor, on the 9th of May 1807, on the Baſs Iſland, in the Frith of Forth, where they are believed to breed and remain the whole year; the general appearance both in ſize and colour was nearly ſimilar to the common ſhag, and the number of tail feathers the ſame; the moſt ſtriking difference ariſes from a ſingular tuft of 46 narrow and nearly ſtraight feathers, two inches long, ſtanding cloſe together upright, with a ſlight bend forward on the front of the forehead, in ſo remarkable a way as at once to diſtinguiſh it from any deſcribed ſpecies. The origin of the lower mandible, and the naked pouch under the throat, was of a bright yellow, approaching to orange, with ſmall ſpots of black; the irides a beautiful graſs green, and it had no bare ſpace round the eyes; the ovaries of both ſpecimens contained a number of ſmall eggs, and from the account of the perſon who takes the young Gannets at the Baſs, and who poſſeſſes conſiderable knowledge of the birds that viſit it, there can be little doubt of its being a new ſpecies, and of its rearing its young in the inacceſſible precipices of that iſland; and it is ſomewhat ſurpriſing that it ſhould have remained ſo long unnoticed in the neighbourhood of ſo many naturaliſts and ornithologiſts as Edinburgh contains; the fleſh was eaten, and found to be entirely deſtitute of that rancid ſmell and taſte that affect the generality of the cormorant tribe.
BLACK GUILLEMOT, (*Colymbus Grylle.*) A rare Britiſh bird.
NORTHERN DIVERS, (*Colymbus Glacialis.*) Male and female.
The largeſt of the Divers meaſures three feet and a half in length. It is ſometimes ſhot on our coaſt.
CRESTED GREBE, (*Colymbus Criſtatus.*)
The largeſt of the Grebes is very common in the fens of Great-Britain; and it is principally remarked for its ſcolloped feet, and the plumage of the breaſt, which is a beautiful ſilvery white, and as gloſſy as ſatin.
EARED GREBE, (*Colymbus Auritus.*) A rare Britiſh bird.
LITTLE GREBE, (*Colymbus Minor.*)
IVORY, or SNOWY GULL, (*Larus Eburneus.*) Found in Greenland.

The NODDY, or BLACK TERN, (*Sterna Stolida.*)

The GREATER TERN, or SEA SWALLOW, (*Sterna Hirundo.*)

BLACK SKIMMER, (*Rynchops Nigra.*)

The bill of this very remarkable bird is totally unlike any other of the feathered tribe; the lower mandible is ſhaped like the blade of a razor, and projects conſiderably farther than the upper, which is like a caſe to receive and protect its ſharp edge. It is a native of Aſia, and America, and is perpetually flying about and ſkimming over water, out of which it ſcoops ſmall fiſh with its lower mandible.

SPOONBILL, (*Platalea Leucorodia.*)

A rare bird in England, though common in the Low Countries between the Ferro Iſles and the Cape of Good Hope. The bill of this bird is different from any other; it is about eight inches long, quite flat, and running out at the end, is there about an inch and a half wide. It is found in many parts of Europe, particularly in Holland, where it builds on trees, and feeds on frogs, lizards, &c.

HORNED SCREAMER, (*Palamedea Cornuta.*)

This extraordinary bird is of the ſize of a large turkey: from the front of the head riſes a ſharp horn, about four inches long, and each joint of which is furniſhed with extremely ſtrong ſpurs, triangular and very ſharp; thoſe on the ſhoulder being nearly as large as a man's finger; they inhabit the fens of South-America, and are always found in pairs feeding on ſeeds and reptiles. The female makes a neſt on the ground, of mud, ſhaped like an oven, and lays two eggs.

WHITE-BELLIED BOAT-BILL, (*Cancroma Cancrophaga.*)

The bill of this bird in ſhape reſembles the bottom of a boat with the keel upwards. It is a native of South-America; perches on trees which overhang the water, and darts down on the fiſh as they ſwim underneath.

CROWNED HERON, (*Ardea Pavonia.*) *See Caſe, No.* 29.

NUMEDIAN CRANE, or DEMOISELLE, (*Ardea Virgo.*)

This beautiful bird has received the name of Demoiſelle, or Miſs, on account of its elegant form, its rich garb, and its affected airs. It was famous amongſt the ancients, though it was little known and ſeen in Greece or Italy.

HERON, (*Ardea Major.*)

Theſe birds in England were formerly ranked as royal game, and protected by the laws. Twenty ſhillings penalty was levied on thoſe who deſtroyed them, or their eggs.

BLUE HERON, (*Ardea Cærulea.*) Native of America.

A large ſpecies of CRANE, from New Holland; ſeems nearly allied to *Ardea Antigone* of Linnæus. Length five feet nine inches; breadth of the wing ſix feet three inches; general colour bluiſh aſh, except the quills and chin, whichare black; top of the head without feather, aſh colour; the regions of the eyes and back of the neck covered by a caruncuiated ſkin of bright vermilion colour. Preſented by Dr. Munro, jun. who received it from New Holland.

A large STORK, unknown.

The BITTERN, (*Ardea Stellaris.*)

The Bittern, though a ſhy ſolitary bird, yet when attacked by the Buzzard, defends itſelf with great courage. It was once held in eſtimation at the tables of the great.

The LITTLE BITTERN, (*Ardea Minuta.*)

The body of this bird in ſize ſcarcely exceeds that of a thruſh; it has occaſionally been ſhot in England, but little is known of its manners or habits. One was killed perching on a tree near Mancheſter, in June 1808.

SCARLET IBIS, (*Tantalus Ruber.*)

Inhabits the borders of the great lakes and rivers of South-America. The colour of the whole bird, except the tips of its wings, which are black, is bright ſcarlet. It feeds on ſmall inſects and crabs, and will breed in a domeſtic ſtate.

PIGMY CURLEW, (*Scolopax Pygmæa.*) A very rare Britiſh bird.

COMMON CULREW, with its Eggs, taken in Scotland.

The length of the bill of this bird ſeems to vary with age: in a young one that was kept ſome time alive, and now in the Muſeum, it was only as long as the common water hen.

The WHIMBRELL, (*Scolopax Phæopas.*)

A Britiſh ſpecies, not ſo common as the Curlew, from which it differs in being only half the ſize.

WOODCOCK, (*Scolopax Ruſticcla.*)

GREEN SHARK, (*Scolopax Glottis.*)

RED SHARK, (*Scolopax Calidris.*)

CAPE SNIPES, (*Scolopax Capenſis.*) Male and female.

GODWIT, (*Scolopax Leucophæa.*)

CINEREOUS GODWIT.

RUFF and REEVE, (*Tinga Pugnax.*)

Theſe birds migrate from Great-Britain in winter: in ſpring, as ſoon as they arrive, each of the males (of which there are a greater number than of females) immediately fixes upon a ſpot of dry graſs in the marſh, about which he runs round and round, until it is trodden bare; to this ſpot it appears he wiſhes to invite the female, and waits in expectation of her taking poſſeſſion and becoming an inmate. As ſoon as a ſingle female arrives, and is heard to cry, the males are rouſed to war, for they inſtantly begin to fight with deſperation; at the end of the battle the female becomes the prize of the victor. At this time they are caught in great numbers by the fowlers, who ſend them with other fen birds to the markets of the metropolis. Theſe birds are common in Denmark and Sweden during ſummer.

SCALLOP-TOED SANDPIPER, or RED PHALAROPE, (*Tringa Hyperborea.*) Very rare Britiſh bird.

LITTLE SANDPIPER, (*Tringa Puſilla.*)

The AVOCETTA, or SCOOPER, (*Recurviroſtra Avoſetta.*)

Remarkable for its long bill, being bent upwards; it is found on our ſhores.

American Avocetta, (*Recurviroſtra Americana.*)
Oyster Catcher, (*Hæmatopus Oſtralegus.*)
Violet Gallinule, or Water Hen, (*Fulica Violacea.*)
Moor Hen, (*Fulica Fusca.*)
Coot, (*Fulica Atra.*)
Spotted Gallinule, (*Rallus Porzana.*)
Emeu, or New Holland Cassowary, (*Struthio Novæ Hollandiæ*, White's Journal.)

Is ſeven feet high, meaſuring from the ground to the upper part of the head, and in every reſpect is much larger than the common Caſſowary of all authors, and differs ſo much therefrom, that it cannot be reckoned otherwiſe than a new ſpecies. The colour of its plumage is greatly ſimilar, conſiſting of a dirty brown or grey; on the belly ſomewhat whiter; the remarkable ſtructure of the feathers in having two quills with their webs ariſing out of one ſhaft, is ſeen in this as well as the common ſort. It differs materially in wanting the horny appendage on the head. The head and beak are more like thoſe of the oſtrich than the common Caſſowary, both in ſhape and ſize. Upon the head the feathers look like hairs. The wings are exceeding ſhort, which form a ridiculous contraſt with the body, as they are leſs than the Caſſowary's: they have no quills in them, being only covered with the ſame ſmall feathers as the body. Another ſingularity alſo preſents itſelf in this ſpecies, which is in reſpect to its legs: the back part of them are indented like a ſaw. The toes are three in number, the middle one long, the others ſhort, with ſtrong claws. On examining the viſcera, it differed from that of every kind of birds, particularly in having no gizzard or ſecond ſtomach; and the liver was ſo ſmall in proportion to the bird's bulk, as not to exceed the ſize of a black-bird's. The crop of one killed at Botany-Bay by the governor was filled at leaſt with 6 or 7lbs. of graſs, flowers, berries, and ſeeds. The fleſh of this bird (ſays Mr. White) is good eating, and taſtes not unlike young tender beef. It is not an uncommon bird in New Holland, as it is frequently ſeen by the ſettlers, both at Botany-Bay and Port Jackſon, but is exceeding ſhy, and runs faſter than a greyhound.

Crested Curassow, (*Crax Alector.*) Male and female.

Inhabits Surinam and other warm parts of South-America; its ſize is nearly that of a turkey; the feathers of the head and neck are black and white; the whole of the body is a rich mixture of fine cream-colour and black; the head is ornamented with an erect creſt, each feather being bent a little forward, which gives the bird a very majeſtic appearance. It is domeſticated in South-America, and is ſaid to be excellent food.

Golden Pheasant, of China, (*Phaſianus Pictus.*)

Of the brilliancy with which nature ſo often decorates the feathered tribe, the Golden Pheaſant is one of the moſt ſtriking examples; a bird of which the colours are ſo powerfully lucid as to dazzle in a full light the eyes of the ſpectator, and can only be exceeded by the

poliſhed luſtre of the humming-bird; even the peacock himſelf, with all his gaudy plumage, falls ſhort in the compariſon. This ſplendid bird is now bred in this country, and will ſtand our winters tolerably well.

Pencilled Pheasant, of China, (*Phaſianus Nycthemerus.*)

In this caſe is alſo an Hybrid bird, partaking of the common pheaſant and domeſtic fowls. This ſpecies, except in its colours, very much reſembles the former ſpecies, and is ſoon domeſticated.

Pinnated Grous, (*Tetrao Cupido.*)

Inhabits North-America; the male at ſun-riſe erects his ſingular wings that riſe from the neck, and ſings for the ſpace of half an hour.

Pearled Partridges, (*Tetrao Perlatus.*) Male and female.

Quail, (*Tetrao Coturnix.*)

A Caſe, containing about 16 Fly-Catchers, all named from different countries.

A Caſe, containing all the Britiſh *Titmice Parus.*

AMPHIBIOUS ANIMALS.

"Were ev'ry falt'ring tongue of man,
"Almighty Father! ſilent in thy praiſe,
"Thy works themſelves would raiſe a general voice;
"Even in the depth of ſolitary woods,
"By human foot untrod, proclaim thy power." Milton.

Lower Case, No. 33.

TORTOISES.

Common Tortoise, (*Teſtudo Græca.*)

This animal is conſidered as the moſt common of the European ſpecies, and is a native of almoſt all the countries bordering on the Mediterranean Sea. It lives to a moſt extraordinary age, inſtances being adduced of its having conſiderably exceeded the period of a century.

Geometrical Tortoise, (*Teſtudo Geometrica.*)

From its ſtrong and well-contraſted colours, and regularity of pattern, the preſent ſpecies is more readily diſtinguiſhable at firſt view than moſt others of this perplexing tribe. The native country of this beautiful tortoiſe is perhaps not truly known; though the ſhell is more frequently ſeen in Europe than of any other kind.

Close Tortoise, (*Teſtudo Clauſa.*)

The Cloſe Tortoiſe obtains its name from the unuſual manner in which the under part of the ſhell is applied to the upper, being con-

tinued in ſuch a manner round the margin, that when the animal withdraws its head and legs, it is enabled accurately to cloſe all parts of the ſhell entirely together, ſo as to be in a complete ſtate of ſecurity; and ſo ſtrong is the defence (ſays Shaw, in his Zoology) of this little animal, that it is not only uninjured by having a weight of 5 or 600lbs. laid upon it, but can walk in its uſual manner beneath the load. It is a native of many parts of North-America, being chiefly found in marſhy places. It is principally ſought for on account of its eggs. It feeds on beetles, mice, and even ſerpents, which it ſeizes by the middle, and draws into its ſhell, and thus cruſhes them to death.

CONCENTRIC TORTOISE, (*Teſtudo Concentrica.*)

This ſpecies is a native of North-America, and is ſold in the market of Philadelphia and elſewhere, by the name of *Terrapin*. It is an inhabitant of waters, and is ſaid to be a wholeſome and even delicate food. It is alſo found in Jamaica.

SNOP or SNAKE TORTOISE, (*Teſtudo Serpentina.*)

This ſpecies, firſt deſcribed by Linnæus, appears to have been obſcurely known. It is a native of North-America, where it inhabits ſtagnant waters, growing to the weight of 15 or 20lbs. and preying on fiſh, ducklings, &c. Whatever it ſeizes in its mouth, it holds with great force, and will ſuffer itſelf to be raiſed up by a ſtick rather than quit its hold. This animal conceals itſelf in muddy waters, in ſuch a manner as to leave out only a part of its back, like a ſtone or other inanimate object, by which means it the more eaſily obtains its prey. In New-York it is called the Snapping Tortoiſe.

It was kept alive in the Muſeum upwards of eight months, during which time it never taſted food. It poſſeſſed a moſt amazing ſtrength, carrying 200lbs without any apparent inconvenience. Its diſpoſition was exceedingly fierce.

LOGGERHEAD TURTLE, (*Teſtudo Caretta.*)

This Turtle exceeds in ſize every other known ſpecies. It inhabits the ſame ſeas with the Green Turtle, but is alſo diffuſed into very remote latitudes, being often found in the Mediterranean, and about the coaſts of Italy and Sicily. In a commercial view, it is of little value; the fleſh being coarſe and rank, and the plates of the ſhell too thin to be of uſe. It is a ſtrong, fierce, and even dangerous animal.

Several Tortoiſes unknown.

The INDIAN TORTOISE, (*Teſtudo Indica.*)

This is the largeſt known ſpecies, the ſhell being upwards of three feet long, and ſix feet in circumference. In this ſpecimen the tubercles on the fore part of the ſhell are wholly wanting.

The FIMBRIATED TORTOISE, (*Teſtudo Fembriata.*)

This is one of the larger ſpecies, and moſt extraordinary in its appearance: it inhabits the rivers of Cayenne and Guiana.

Case, No. 34.

LIZARDS.

This caſe contains fifty-one ſpecies of LIZARDS, beautifully preſerved, and diſplayed on an artificial rock, ſo as to exhibit them in their various attitudes, and convey an idea of their haunts and mode of life: the greater part of them being named, we ſhall only mention thoſe whoſe hiſtory and habits are known and remarkable.

Two ſpecimens of the FLYING DRAGON, (*Draco Volans.*)

This very extraordinary ſpecies of Lizard is a native of Aſia and Africa. "The very name, (ſays Dr. Shaw) conveys to the "maſs of mankind the idea of ſome formidable monſter, and recals "to the imagination the wild fictions of romance and poetry, but "the animal diſtinguiſhed by that title in modern natural hiſtory, "is a ſmall harmleſs Lizard." It is about ten inches long, and furniſhed with large expanſible wing-like membranes, which enable it to ſpring to a conſiderable diſtance in queſt of its prey; it has a pouch under the throat of a ſingular appearance, and is altogether different from every other creature.

A young CROCODILE, (*Lacerta Crocodilus.*)

This ſometimes attains the length of 25 to 30 feet, and is of great ſwiftneſs, voracity, and ſtrength; roars hideouſly; and devours men, and other large animals.

A CROCODILE from the Iſland of St. Thomas, differing conſiderably from the common one.

The GANGETIC CROCODILE, (*Lacerta Gangetica.*)

A very young ſpecimen; grows to the length of 30 feet.

The ALLIGATOR, (*Lacerta Aligator.*)

This animal bears ſo near a reſemblance to the Crocodile, that many naturaliſts have conſidered it as a mere variety, rather than a diſtinct ſpecies. Cateſby ſays, the largeſt and greateſt number of Alligators inhabit the torrid zone. They frequent not only ſalt rivers near the ſea, but ſtreams of freſh water in the upper parts of the country, where they lie lurking among the reeds to ſurpriſe cattle and other animals. In Jamaica, and many parts of the Continent, they are found about twenty feet in length. They cannot be more terrible in their aſpect than they are formidable and miſchievous in their natures, ſparing neither man nor beaſt they can ſurpriſe, pulling them down under water to drown them, that they may with greater facility, and without ſtruggle or reſiſtance, devour them. As quadrupeds do not often come in their way, they almoſt always ſubſiſt on fiſh. This deſtructive monſter can neither ſwim nor run any way than ſtraight forward, and is conſequently diſabled from turning with that agility requiſite to catch his prey by purſuit;

therefore they do it by ſurpriſe, in the water as well as by land. The Alligator is ſuppoſed to be a long-lived animal, and their growth is extremely ſlow.

DRAGON LIZARD, (*Lacerta Dracœna.*)

Is a native of South-America, and meaſures two feet four inches in length; it is a harmleſs animal, and much eſteemed as an article of food, though to perſons unaccuſtomed to ſee it, it preſents a formidable appearance.

The IGUANA, (*Lacerta Iguana.*)

Though the Lizard tribe affords numerous examples of ſtrange and peculiar forms, yet few ſpecies are perhaps more eminent in this reſpect than the Iguana, which grows to a very conſiderable ſize, and is often ſeen the length of from three to five feet. It is a native of many parts of America and the Weſt-India Iſlands, where it inhabits rocky and woody places, and feeds on inſects and vegetables. It is reckoned excellent food, being exceedingly nouriſhing and delicate; but obſerved to diſagree with ſome conſtitutions. The common manner of catching it is by caſting a nooſe over its head, and thus drawing it from its ſituation; for it ſeldom makes an effort to eſcape, but ſtands looking intently at its diſcoverer, inflating its throat at the ſame time in an extraordinary manner. Iguanas are ſometimes ſalted and barrelled up for uſe in Jamaica, and other Weſt-India Iſlands, in conſiderable quantities. The Iguana may eaſily be tamed while young, and in that ſtate is both an innocent and beautiful creature. The larger one in this caſe lived ſome time in the ſtove of the Liverpool Botanic Garden, but it never was obſerved to take food. It was eaſily irritated, at which time it puffed up the pouch under its throat in an extraordinary manner; and on the near approach of dogs, which it ſeemed to have an averſion to, it ſuddenly ſtruck them forcibly with its tail, but it was never known to bite.

Several CAMÆLEONS, (*Lacerta Camæleon.*)

Few animals have been more celebrated by natural hiſtorians than the Camæleon, which has been ſometimes ſaid to poſſeſs the power of changing its colour at pleaſure, and of aſſimilating it to that of any particular object or ſituation. This, however, muſt be received with great limitations; the change of colours which this animal exhibits varying in degree, according to circumſtances of health, temperature of the weather, and many other cauſes, and conſiſting chiefly in a ſort of alteration of ſhades, from the natural greeniſh or bluiſh grey of the ſkin into pale yellowiſh, with irregular ſpots or patches of dull red. The Camæleon is a creature of a harmleſs nature, and ſupports itſelf by feeding on inſects; for which purpoſe the ſtructure of the tongue is finely adapted, conſiſting of a long miſſile body, furniſhed with a dilated and ſomewhat tubular tip, by means of which the animal ſeizes inſects with great eaſe, darting out its tongue in the manner of a woodpecker, and retracting it inſtantaneouſly with the prey ſecured on its tip. It can alſo ſupport a long abſtinence, and hence aroſe the idea of its being nouriſhed by air

alone. It is found in many parts of the world, and particularly in India and Africa, and alſo in Spain and Portugal. One that was kept alive in Liverpool, was regularly fed with ſugar and bread, and appeared to have an affection for the perſon who had the care of it. Its change of form was as remarkable as that of colour.

Bottom Case, No. 35.

A very fine ſpecimen of the AMERICAN IGUANA, preſented to the Muſeum by Lady Hippiſley Cox.

The AFRICAN IGUANA, (*Lacerta Iguana.*)

The MONITORY LIZARD, (*Lacerta Monitor.*)

The Monitory Lizard is one of the moſt beautiful of the whole tribe; and is alſo one of the largeſt, ſometimes meaſuring not leſs than four or five feet from the noſe to the tip of the tail. This elegant animal is found with little variation in South-America, New Holland, and Africa, where it frequents woody and watery places; and if credit may be given to the reports of ſome authors, is of a diſpoſition as gentle as its appearance is beautiful. It has gained the name of Monitor, from its ſuppoſed attachment to the human race, and it has been ſaid that it warns mankind of the approach of the alligator by a loud and ſhrill whiſtle.

The GALLIWASP, (*Lacerta Occidua.*)

The Galliwaſp is a native of the American Iſlands, and ſeems to be particularly common in Jamaica, where it is ſaid to frequent woody and marſhy diſtricts. The Galliwaſp (according to Brown, in his Natural Hiſtory of Jamaica) is reckoned the moſt venomous reptile in that iſland, and it is ſaid that no creature can recover from its bite; but this he very properly conſiders merely a popular error. This animal is not noticed by Linnæus.

Case, No. 36.

The GREAT BOA, (*Boa Conſtrictor.*)

By thoſe who are unacquainted with the wonders of nature, the deſcriptions given by Naturaliſts of ſome of the more ſtriking and ſingular animals are received with a degree of ſcepticiſm, or even rejected, as exceeding the bounds of credibility. Amongſt theſe animals may be numbered the prodigious ſerpents which are ſometimes found in India, Africa, and America; ſerpents of ſo great a ſize as to be able to gorge even ſome of the largeſt quadrupeds, and of ſo enormous a length as to meaſure upwards of thirty feet. There is reaſon to believe, that theſe immenſe ſerpents are become leſs common than they were ſome centuries back; and that in proportion as cultivation and population have increaſed, the larger ſpecies of noxious animals have been expelled from the haunts of mankind. They are, however, occaſionally ſeen, and ſometimes approach the plan-

tations neareſt to their reſidence. It is happy for mankind that theſe ſerpents are not poiſonous; they are therefore to be dreaded only on account of their ſize and ſtrength, which latter is ſo great as to enable them to kill cattle, deer, and other animals, by writhing themſelves round them ſo as to cruſh them to death by mere preſſure; after which they ſwallow them in a very gradual manner, and when thus gorged with their prey, grow almoſt torpid with repletion; and if diſcovered in this ſtate, may without difficulty be diſpatched. Theſe enormous ſerpents are natives of Africa, India, the Indian Iſlands, and South-America, where they inhabit marſhy and woody places. There are ſeveral ſpecies of the Boa in this collection, one of which is conſidered by naturaliſts, in reſpect to beauty of colour, ſize, or preſervation, to be the fineſt ſpecimen ever brought into the country; it meaſures thirty-two feet in length, and two feet ſix inches in circumference, and is preſerved in the act of deſtroying a deer, which is cruſhed, and expiring in the enormous folds of its mercileſs enemy.

Case, No. 37.

SERPENTS.

Contains thirty-ſeven different SERPENTS, finely prepared, and exhibited in their natural poſitions, with the Engliſh and Linnæan names attached to them.

Lower Case, No. 38.

A young ſpecimen of the BOA CONSTRICTOR.

STRIPED RATTLE-SNAKE, (*Crotalus Duriſſus.*)

The Rattle-Snake is the moſt poiſonous of reptiles, that inhabits America. The moſt conſpicuous diſtinction this animal bears from all other of its ſpecies is the rattle, which makes ſo loud a noiſe while the creature is in motion, that its approach may be known, and danger avoided. Many naturaliſts are of opinion, that this Snake acquires an additional bone to the rattle every year; from the number of which bones, the preciſe age of the ſnake may be known. Cateſby, in his Hiſtory of Carolina, ſays, "the Rattle-"Snake is the moſt inactive and ſluggiſh of animals, and is never "the aggreſſor, except in what he preys upon; for unleſs he is diſ-"turbed, he never bites, and when provoked he gives warning by "ſhaking his rattles, ſo that a perſon has time to eſcape." It is ſaid that this ſnake has the power of charming or faſcinating ſmall animals within its reach, which it devours. Squirrels and birds are its principal prey, and no ſooner do they ſpy the ſnake than they ſkip from bough to bough, and approach by degrees nearer to the enemy, regardleſs of any danger, until they enter the extended jaws that are open to ſeal their ruin. Bartrum obſerves, that ſome Indian nations never kill the Rattle-Snake, or any other of the ſpecies, alleging as their motive, that it would influence its living kindred to revenge the injury or violence done to it when alive. The fleſh of the Rattle-Snake is ſaid to be much reliſhed, even by Europeans.

SPECTACLE SNAKE, or COBRA DE CAPELLO, (*Coluber Naja.*)

The Coluber Naja, or Cobra de Capello, is a native of India, where it appears to be one of the moſt common, as well as the moſt noxious of the ſerpent tribe; very frequently proving fatal in the ſpace of a few minutes to thoſe who unfortunately experience its bite. In India it is exhibited as a ſhew, and is of courſe more univerſally known in that country than almoſt any other of the race of reptiles. It is carried about in a covered baſket, and managed by its proprietors in ſuch a manner, as to aſſume a dancing motion at the ſound of a muſical inſtrument. The Indian jugglers, who thus exhibit the animal, deprive it of its fangs, by which they are ſecured from its bite.

FISHES.

See thro' this air, this ocean, and this earth,
All matter quick, and burſting into birth;
Above how high progreſſive life may go,
Around how wide, how deep extend below!
Vaſt chain of being, which from GOD began;
Nature's etherial, human angel, man,
Beaſt, bird, fiſh, inſect, what no eye can ſee,
No glaſs can reach; from infinite to Thee,
From Thee to nothing!

POPE.

Lower Case, No. 39.

CORYPHENE, or DOLPHIN, (*Coryphæna Hippuris.*)

The Dolphin is an inhabitant of the Mediterranean, Indian, and Atlantic ſeas, where it often appears in large ſhoals, and is ſometimes obſerved to follow ſhips, devouring with avidity any occaſional article of food which may happen to be thrown overboard, it will even ſwallow ſubſtances of a different nature; and we are informed from the authority of Plumier, that in the ſtomach of one which he examined, were found four iron nails, one of which meaſured more than five inches. When taken out of the water, the beautiful colours (with which the fiſh is decorated when living) fade as it expires; the luſtre vaniſhing by degrees, till at length it becomes of a dull grey colour. This gradual evaneſcence of colour in the dying Coryphene is contemplated by ſailors with as much delight as the Romans are ſaid to have exhibited on viewing ſimilar changes in the expiring Mullet, when brought to their tables before the feaſt began. The Coryphene is a ſtrong and vigorous fiſh, and ſwims with great

rapidity. It is perpetually engaged in the purſuit of ſmaller fiſhes; and is conſidered as one of the moſt cruel perſecutors of the flying-fiſh. The fleſh is ſaid to be excellent.

FLYING GURNARD, (*Trigla Volitans.*)

This highly ſingular and beautiful ſpecies is a native of the Mediterranean, Atlantic, and Indian ſeas, where it ſwims in ſhoals, and is often ſeen flying out of the water, in the ſame manner as the flying-fiſh *Exocætus*. In its native element, the colours of this fiſh are extremely brilliant. It is crimſon above, pale or of a white colour underneath. The pectoral fins are extremely large, tranſparent, of an olive green, richly varied with numerous bright blue ſpots. The tail is pale violet, with the rays croſſed by duſky ſpots, and ſtrengthened on each ſide the baſe by two obliquely tranſverſe bony ribs or bars.

Small SAW FISH, (*Priſtis Antiquorum.*)

The Saw-Fiſh is a ſpecies of Shark, growing to the length of fifteen feet or more. It is an inhabitant of the Mediterranean and Northern Seas, and was known to the ancient writers by the name of *Priſtis*.

STRIPED CHÆTODON, (*Chætodon Striatus.*)

This fiſh is a native of the Indian and American Seas.

SPARRUS. Unknown.

PORCUPINE-FISH, (*Diodon Hyſtrix.*)

In point of habit or external appearance, the remarkable genus Diodon may be ſaid to connect in ſome degree the tribe of fiſhes with that of the ſpiny quadrupeds, ſuch as the porcupines and hedge-hogs; it is alſo allied in a ſimilar manner to the *Echini*, or ſea urchins. The Diodon Hyſtrix, commonly termed the ſea porcupine, is ſaid to afford an amuſing ſight when taken by a line and hook, baited by a ſpecies of crab: after ſeizing the bait, by a ſudden ſpring, on finding itſelf hooked, it exhibits every appearance of a violent rage, inflating its body, and elevating its ſpines to the higheſt poſſible degree, as if endeavouring to wound in all directions, till, after having tired itſelf by its vain efforts, it ſuddenly expels the air from its body, and becomes flaccid for ſome time: but when drawn towards the ſhore, it redoubles its rage, and again inflates its body; in this ſtate it is left on the ſand, it being impoſſible to touch it without danger till it is dead. It is a native of the Indian and American Seas, and is conſidered as a coarſe fiſh, but is ſometimes eaten by the inhabitants of the Weſt-India iſlands.

LOPHIUS. Unknown.

TORPEDO RAY, (*Raja Torpedo.*)

The Torpedo has been celebrated both by ancients and moderns, for its wonderful faculty of cauſing a numbneſs or painful ſenſation in the limbs of thoſe who touch or handle it. The ſhock or ſenſation given by this Ray is attended with all the effects of that produced by the electrical machine, ſo far as experiment has hitherto enabled us to diſcover. Although this fiſh does not appear to be furniſhed

with any ſtriking exterior qualities; although it has no muſcles, formed for great exertions, nor any internal conformation differing from the Ray kind; yet ſuch are the wonderful powers it poſſeſſes, that in an inſtant it can paralyſe the hand or body that touches it, and cauſe for a while a total ſuſpenſion of the mental faculties. Reaumer has by ſeveral experiments attempted to demonſtrate, that it is not neceſſarily, but by a voluntary effort, that the Torpedo benumbs the hand that touches it. On every trial he could readily perceive when it intended to give the ſtroke, and when it was about to continue inoffenſive. In preparing to give the ſhock, it flattened its back, raiſed its head and tail, and then, by a violent contraction in the oppoſite direction, ſtruck with its back againſt the finger that touched it; and its body, which before was flat, became round and lumped. It is ſaid, that the negroes can handle the Torpedo without being affected; and we are told the whole ſecret of ſecuring themſelves from its effects conſiſts in keeping reſpiration ſuſpended at the time. The electrical power, however, is known to terminate with the life of the animal, and when dead, it is handled or eaten with perfect ſafety. It is an inhabitant of the Northern, European, and the Mediterranean Seas.

SEA HORSE, (*Syngnathus Hippocampus.*)

The Hippocampus is a fiſh of a highly ſingular appearance. In its dry or contracted ſtate, this animal exhibits the fancied reſemblance from which it takes its name; but in the living fiſh, this appearance is ſomewhat leſs ſtriking, the head and tail being carried nearly ſtraight. It is a native of the Mediterranean, Northern, and Atlantic Seas.

FIVE-RAYED STAR-FISH, (*Aſterias Lavigata.*)

CARVED ASTERIAS, (*Aſterias Toreuma.*)

It is a native of the Indian Seas, and is found of various ſizes, from an inch to ſix inches in diameter.

Enormous CRAB's CLAW, meaſuring in the broadeſt part upwards of ten inches in circumference.

Lower Case, No. 40.

LONG-FINNED CHÆTODON, (*Chætodon Teira.*)

This curious fiſh is a native of the Indian and Arabian Seas, and is ſaid to arrive at a conſiderable ſize.

HARLEQUIN ANGLER, (*Lophius Hiſtrio.*)

This ſpecies is a native of the Indian and American Seas, growing to the length of ten or twelve inches, and in manners reſembles the European Angler. Monſieur Renard, in his Hiſtory of Fiſhes, affirms, that he knew an inſtance of an individual of this ſpecies kept for three days out of water, and which walked about the houſe in the manner of a dog.

YOUNG FROG-FISH, or ANGLER, (*Lophius Europæus.*)

The Frog-Fiſh is remarkable for its uncouth appearance. The one under conſideration is an inhabitant of the European Seas, where it ſometimes arrives at a great ſize. It is obſerved to frequent ſhallow parts of the ſea, lying in ambuſh, covered with weeds and mud, in ſuch a manner that the ſmaller fiſhes, deceived by its tentacula, or long proceſſes on the head, by their reſemblance to worms, on attempting to ſeize them become a prey to the Lophius.

BEAKED ANGLER, or BAT-FISH, (*Lophius Roſtratus.*)

A native of South-America, and preys upon ſmall fiſhes and worms.

REMORA, or SUCKING-FISH, (*Echeneis Remora.*)

This fiſh has the power of adhering to whatever it ſticks againſt, in the ſame manner as a cupping-glaſs adheres to the human body. It is by ſuch an apparatus that this fiſh ſticks to the body of a ſhark, drains away its moiſture, and produces a gradual decay. It is found principally in the Mediterranean and Atlantic ſeas, where it grows to the length of about eighteen inches.

The BONY SCALED PIKE, (*Eſox Oſeus.*)

This is a fiſh of conſiderable ſize, and of very remarkable appearance, being covered with ſtrong bony ſcales, diſpoſed in long oblique rows, which give it the appearance of being carved out of a ſolid piece of ivory. It is a native of the freſh-water lakes and rivers of America; and the fleſh is conſidered as excellent.

LUMP SUCKER, (*Cyclopterus Lumpus.*)

PAVONIAN SUCKER, (*Cyclopterus Pavoninus.*)

This beautiful fiſh was caught in the river Merſey, near Liverpool.

ARMED LORICARIA, (*Loricaria Cataſracta.*) Found in the American Seas.

YELLOW LORICARIA, (*Loricaria Flava.*)

Lower Caſe, No. 41.

SLENDER FISTULARIA, or TRUMPET-FISH, (*Fiſtularia Tabacaria.*) This very remarkable fiſh is a native of the American Seas, and ſubſiſts on the ſmaller fiſhes, ſea-inſects, and worms.

OCEANIC FLYING-FISH, (*Exocætus Evolans.*)

The fiſhes of this genus, which are few in number, are remarkable for the extreme length and ſize of their pectoral fins, by which they are enabled to ſpring from the water, and ſupport a kind of temporary flight or continued motion through the air, to the diſtance of 2 or 300 feet; when the fins become dry, they are obliged to commit themſelves to their own element. The fiſh here deſcribed is an inhabitant of the American and Indian Seas, but is occaſionally obſerved in the Mediterranean. Pennant records an inſtance of its being ſeen about the Britiſh coaſts. The celebrated Bonnet conſidered this

ſpecies of fiſh as forming a kind of connecting link between fiſhes and birds, ſimilar to that which bats may be ſuppoſed to form between birds and quadrupeds.

LASHER BULLHEAD, (*Cottus Scorpius.*)

This fiſh is an inhabitant of the Mediterranean and Northern Seas, it is ſaid to be pleniſful about the coaſt of Greenland, where it is eſteemed good food. It is a ſtrong fiſh, ſwimming with rapidity, and preying on ſmaller fiſhes. It is ſaid to live a conſiderable time out of the water, having a power of cloſing the gill covers in ſuch a manner as to exclude the effect of the atmoſpheric air. When caught, if held in the hand, it exerts a ſtrong and peculiar ſound by the expulſion of air through its mouth; during this action the mouth is opened to the utmoſt width, the pectoral fins are ſtrongly expanded, and the whole body is agitated by a vibrating or tremulous motion.

HARE-MOUTH GLOBE-FISH, (*Tetrodon Lagocephalus.*)

This genus, like the Diodon, has the power of inflating its body at pleaſure. It is an inhabitant of the Indian and American Seas, but occaſionally ſtrays into the northern latitudes, and has been taken, according to Pennant, about the Britiſh coaſts, viz. near Penzance in Cornwall.

ROUND DIODON, or SEA HEDGE-HOG, (*Diodon Orbicularis.*)

LAMPREY, (*Petromyzon Marinus.*)

This fiſh has long held its place at the tables of the luxurious, having always formed a part of ſplendid feaſts of our ancient nobility; and King Henry I. loſt his life by too great an indulgence in this his favourite diſh. In the early part of the year they are met with in great numbers in the river Severn, when they are in large quantities potted, and ſent to London.

The HAMMER-HEADED SHARK, (*Squalus Zygæna.*)

This is a very voracious and deformed animal, and differs from that of any other known creature; they ſometimes attain the length of fifteen feet, and are natives of the Mediterranean and Indian Seas.

ANGEL FISH, or SHARK, (*Squalus Squatina.*)

JACKSONIAN SHARK, (*Squalus Jackſonii.*)

This is a new ſpecies, lately diſcovered in the harbour of Port Jackſon, Botany-Bay.

HORNED TRUNK-FISH, (*Oſtracion Cornutus.*)

YOUNG SHARK, (*Squalus Carcharias.*)

The Shark is as formidable in appearance, as he is alſo dreaded for his courage and activity. No fiſh can ſwim ſo faſt, for he will outſtrip the ſwifteſt ſhip. "They are (ſays Mr. Pennant) the dread "of ſailors in all hot countries, where they conſtantly attend the "veſſels, in expectation of what may drop overboard: a man that "has that misfortune periſhes without redemption; they have been "ſeen to dart at him like gudgeons at a worm." They are ſaid to attack Negroes in preference to Europeans, and to attend with

afſiduity the ſlave ſhips from Africa to the Weſt-Indies. The Shark grows to an enormous ſize, ſometimes thirty feet in length.

YOUNG STURGEON, *(Acipenſer Sturio.)*

Inhabits the European, Mediterranean, Red, Black, and Caſpian Seas, and annually deſcends the rivers in ſpring. It is a fiſh of ſlow movement, is very prolific, and preys on other fiſh. Its fleſh is held in great eſtimation.

FROG FISH, *(Lophius Europæus.)* Taken in the river Merſey.

INSECTS.

. . . . . Each moſs,
Each ſhell, each crawling inſect, holds a rank
Important in the plan of Him, who form'd
This ſcale of beings; holds a rank, which loſt
Would break the chain, and leave a gap
That Nature's ſelf would rue!

Case, No. 42.

In this caſe is a brilliant diſplay of the Inſect tribe, conſiſting of a ſelection of about 500 of thoſe moſt remarkable for their beauty of colours, extraordinary form, or ſingularity of manner or œconomy. A bare recitation of the names of this very numerous claſs would add but little to the information or pleaſure of the general reader, and would increaſe the ſize and expenſe of this Catalogue unneceſſarily: we ſhall therefore give only thoſe beſt known or moſt remarkable.

HERCULES BEETLE, *(Scarabæus Hercules.)*

The Beetle here deſcribed is a native of the iſland of Guadaloupe; but on the continent of New Spain this ſpecies is ſaid to be often ſeen of very large dimenſions. The horn of this beetle above is toothed on each ſide, and beneath it is covered with a ſubſtance reſembling yellow pluſh; the proboscis below is alſo toothed. Between theſe, it is ſaid, the inſect takes the ſmaller branches of trees, and by ſwiftly flying round ſoon ſaws them off, for the purpoſe of building its neſt. The teeth cut away the wood, and the pluſh part ſerves to bruſh away the ſaw-duſt. Dr. Shaw, however, in his Naturaliſt's Miſcellany, ſays, that on a narrow inſpection of the proboscis of this beetle, it will appear no ways calculated for the ſawing off branches from trees; he reckons therefore the whole operation as a vulgar error. It is a very miſchievous animal, and exceedingly difficult to be taken. It meaſures ſeven inches in length.

ACTÆON BEETLE, *(Scarabæus Actæon.)*

This is the largeſt of inſects, except the crabs and monoculi. It a native of South-America.

STAG BEETLE, *(Lucanus Cervus.)*

This is found in England in decayed trees.

PATCH-WINGED DIAMOND BEETLE, *(Curculio Splendens.)*

DIAMOND BEETLE, *(Curculio Imperialis.)*

There are ſeveral ſpecimens of theſe, which, with the above, are natives of South-America; and perhaps the whole inſect race does not diſplay more ſplendour or richneſs; it may be truly ſaid that "Solomon in all his glory was not arrayed like one of theſe."

CERAMBYX GIGANTEUS. The body of this extraordinary inſect is near ſix inches long. It is a native of Cayenne, and very rare.

The GIANT MANTIS, *(Mantis Gigas.)*

PRAYING MANTIS, *(Mantis Oratoria.)*

Moſt of the genus Mantis, and this ſpecies in particular, are held ſacred by the natives of the country they inhabit. From the ſingular manner in which it raiſes the upper part of the body and four legs, it is ſuppoſed to point out the way to travellers that have loſt their road. Many of the Mantis ſo ſtrongly reſemble leaves, that at firſt ſight they can ſcarcely be known.

GREAT LOCUST, *(Gryllus Giganteus.)*

AFRICAN LOCUST, *(Gryllus Capenſis.)*

ELEPHANT LOCUST, *(Gryllus Elephas.)*

Of all the inſects which are capable of adding to the calamities of mankind, by devouring the products of the earth, Locuſts ſeem to poſſeſs the moſt formidable powers of deſtruction. Legions of theſe voracious creatures are from time to time produced in the various parts of Africa and the eaſtern world, where the havock they commit is almoſt incredible, changing in a few hours the moſt fertile plains into an appearance of a deſert; nay, even when dead, they are terrible, ſince the putrefaction which ariſes from their inconceivable numbers is ſuch, that it has been regarded as one of the principal cauſes of a peſtilence. The largeſt ſpecies of theſe inſects are uſed as an article of food, and in many markets of the Levant they are publicly ſold. The female is regarded as a very nutritious ſuſtenance, and is much ſought after.

GREAT LANTHORN FLY, *(Fulgora Lanternaria.)*

This highly curious inſect is a native of South-America; from the large hollow tranſparent projection in front of the head it emits a ſufficient light for perſons to read by; and travellers are ſaid to be directed in their journey by night, by fixing one or two of them on a ſtick.

COMMON CICADA, *(Cicada Plebeia.)*

The Cicada, ſo often commemorated by the ancient poets, and ſo generally confounded by the major part of tranſlators with the Graſshopper, is a native of the warmer parts of Europe, and is par-

ticularly plentiful in Italy and Greece. The common Cicada appears in the hotteſt ſummer months, and continues its ſhrill chirping during the greateſt part of the day, ſitting amongſt the leaves of trees.

ATLAS MOTH, (*Phalæna Atlas.*)

This is by much the largeſt of Moths, meaſuring nine inches acroſs the wings: it is a native of the Eaſt-Indies and South-America.

GREAT BLACK WASP, of PENNSYLVANIA.

This great Waſp ſupplies itſelf with food by roving about the meadows, catching graſshoppers, and other inſects; on theſe it feeds, and not on fruits, as other Waſps do. But what is more remarkable, is the method of making their neſts, and providing for their young. With great pains and induſtry they ſcratch an horizontal hole, near an inch diameter, and a foot long, in the ſteep ſide of a bank of loamy earth; then away the Waſp flies, and catches a large graſshopper, and lodging it in the farther end of the neſt, there ſhe lays an egg, and then goes and catches two more, and depoſits them with the other, then plaſters up the hole. The egg ſoon produces a maggot; theſe graſshoppers are, by marvellous inſtinct, provided for its food, until it changes into its pupa ſtate, in which it lies for a certain period, and then eats its way out, and flies away, ſeeking its mate. What may deſerve our farther attention, is the wonderful ſagacity of this creature, not only in catching theſe large graſshoppers, though bigger than itſelf, which are like ours, and are very ſtrong and nimble; but their peculiar ſkill is to be admired in diabling them, either by bite or ſting, ſo as not to kill them; for then they would ſoon putrify, and be unfit for nourithment. Life ſufficient is left to preſerve them for the time the maggot is to feed upon them. The ſting of this waſp is painful, but does not ſwell like others.

The Female, or Queen of the TERMITES, or WHITE ANTS, (*Termes Fatale.*)

Mr. Smeathman, who reſided many years in Africa, has, in the 71ſt volume of the Philoſophical Tranſactions, given a beautiful and intereſting account of the manners, inſtinct, and wonderful œconomy of theſe extraordinary animals; which, from their immenſe number and power of annoyance, are the greateſt peſt of that country. To detail the whole of their habits and mode of life would require a volume: the inſtinct of the common ant, the bee, or the beaver, are trifling when compared with theſe. Though little larger than the common ant, their buildings, from the number, cloſeneſs, and magnitude often appear like the villages of the natives; and the depredations they commit render them truly formidable: nothing but metal or glaſs can eſcape the deſtroying fangs of theſe minute invaders. The one in this collection is a pregnant Queen, the general mother of the whole community, and is a thouſand times heavier than the male, or king, who is of a ſize conſiderably larger than the labourer or ſoldier.

—Mr. Smeathman's deſcription of this ant has been copied in Dr. Winterbotham's account of Sierra Leone, and the 2d volume of Wood's Zoography, page 446.

The BIRD-CATCHING, or GREAT SURINAM SPIDER, (*Aranea Avicularia.*)

The inſect above-mentioned is the largeſt of all the ſpiders, meaſuring from eight to ten inches in the extent of its legs, which are covered with rough hair: it is however not uncommon in many parts of South-America. It reſides amongſt the trees, and ſeizes on ſmall birds, particularly humming birds, which it deſtroys by ſucking their blood, after having firſt wounded them by its fangs. This Spider has eight eyes, which are diſpoſed ſomewhat in the form of an oblong ſquare; two are perfectly round, the others are of an oval ſhape.

TARANTULA SPIDER, (*Aranea Tarantula,*) with its curious Neſt.

This is the animal of which ſuch long accounts have been given to the world of the wonderful and melancholy effects ariſing from its bite, which is repreſented to be cured only by muſic, which cauſed the patient involuntarily to dance in the moſt violent manner; but the whole account being now clearly proved to have exiſted in vulgar error, is not now worth repeating.——The Neſt is highly curious from its remarkable ſtructure; it is cylindric, with a valve or door, which the animal opens and ſhuts every time it enters; the manner in which this is performed, as well as the creature itſelf, is deſcribed by the elegant pen of Darwin, in his Zoonomia.

AFRICAN SCORPION, (*Scorpio Afer.*)

There are ſeveral ſpecies of Scorpions in this collection, but none of them ſo remarkable, either for ſize or malignity of poiſon, as the above, which is near nine inches long, and armed in front by ſtrong claws, reſembling thoſe of ſome ſpecies of crabs; but its poiſonous ſting is ſituated at the end of the tail, in which may be obſerved the reſervoir for ſupplying it with the fatal fluid, and the minute holes on each ſide of the ſting, through which it is injected into the wound.

GREAT CENTIPEDE, (*Scolopendra Morſitans.*)

This is likewiſe a native of the hotteſt parts of the world, and one of the peſts of ſociety, being highly poiſonous, but what renders it particularly dangerous is its frequenting inhabited places, and biting perſons during their ſleep, to prevent which they are obliged to place the feet of their bedſteads in water: it meaſures twelve inches in length.

TWO SMALL CASES OF MARINE INSECTS.

Glass Case, No. 1.

MANTIS CRAB, (*Cancer Mantis.*) This curious Crab inhabits England, and is alſo found in China, &c.

CRAB, (*Cancer.*) Unknown.
Ditto. Unknown.
Cancer Homarus.
LONG-ARMED CRAB, *(Cancer Longimanus.)*
Native of the European Seas, and is ſeldom found of a large ſize.
Suppoſed *Cancer Artificioſa.*
Cancer. Unknown.
YOUNG TURTLE, (*Teſtudo Caretta.*)
HIPPOCAMPUS, or SEA-HORSE, (*Syngnathus Hippocampus.*)
Cancer Craniolaris. Inhabits the ſhores of Malabar, where it is often found petrified.
SOLDIER CRAB, (*Cancer Bernhardus.*)
This ſpecies being deprived of the ſtrong covering behind, as in the other genus, takes refuge in the deſerted univalve ſhells. As it grows in bulk, it changes its ſmall habitation for a larger. Its tail, which is naked and tender, is furniſhed with a hook, by which it ſecures itſelf in its lodging, and carries it about in ſearch of prey. Inhabits Great-Britain, &c.

Glass Case, No. 2.

Cancer Pelagicus. Found among ſea-weed.
SPIDER CRAB, (*Cancer Araneus.*)
The fiſhermen ſuppoſe this ſpecies injurious to the beds of oyſters; and therefore when they dredge it up, they do not throw it back into the ſea, but deſtroy it. It is often covered with a Byſſus. Inhabits Europe.
LAND CRAB, (*Cancer Ruricola.*)
The Land Crab reſides in woods; and in the Bahama Iſlands they are ſo numerous, that the ground ſeems to move as they crawl about. In breeding time they make to the ſea ſhores to depoſit their eggs, and no obſtruction can turn them out of the way. They live on vegetables, and are eſteemed excellent food.
Cancer. Unknown.
GREEN CRAB. Unknown.
Cancer. Unknown.
Cancer Forceps. Inhabits the ocean.
Cancer. Unknown.
HIPPOCAMPUS, *(Syngnathus Hippocampus.)*
Cancer. Unknown.
Suppoſed *Cancer Cryſtatus.* Inhabits the ocean.
HERMIT CRAB, (*Cancer Diogenes.*) Inhabits an univalve ſhell the ſame as the ſoldier crab.
HORRID CRAB, *(Cancer Horridus.)* Is a native of the Aſiatic Seas.

INDIAN MONOCULUS, MOLLUCCA, or KING CRAB, (*Monoculus Polyphemus.*)
The name Monoculus was beſtowed on this genus of inſects, from the circumſtance of the eyes being generally ſeated ſo near each other, as upon a curſory view to appear as if ſingle. In ſome ſpecies, however, (as in the preſent,) it happens that they are really remote from each other. Of all the animals of which naturaliſts have agreed to diſtinguiſh by the appellation of inſects, the Indian Monoculus is by far the largeſt yet known. It is a native of the Indian Ocean, and is ſaid to be generally found in pairs, or male and female ſwimming together. To what has been ſaid of the Monoculus I ſhould not omit to add, that the eyes in this animal, according to the obſervations of Mr. Andre, (Phil. Tranſact. vol. 72,) conſiſt of a great number of very ſmall cones; in this reſpect they differ from thoſe of moſt other inſects, in which the outward coat of the eye is compoſed of innumerable ſlight convexities, bounded by an hexagonal outline.
THE CRAY FISH, *(Cancer Homarus.)*
This grows to a conſiderable ſize; and on ſome of our ſhores is frequently taken. As an article of food it is little inferior to the lobſter.

Cases, Nos. 43 and 44.

Gradual, from theſe what numerous kinds deſcend
Evading e'en the microſcopic eye!
Full Nature ſwarms with life; one wond'rous maſs
Of animals, or atoms organized,
Waiting the vital breath, when Parent Heav'n
Shall bid his ſpirit blow. THOMSON.

MARINE PRODUCTIONS.

This pair of caſes contain a rich and numerous aſſemblage of the inhabitants of the marine world, diſpoſed in ſuch a manner as they may be ſuppoſed to exiſt in the bottom of their native element: they conſiſt of Shells, Corals, Coralines, Madrepores, Gorgonias, Sponges, &c. &c. to deſcribe which accurately would require the pen of an Ellis or a Solander, and would far exceed the limits of this little publication. We ſhall merely obſerve, that till lately the principal parts of the contents of theſe caſes were conſidered as Marine Vegetables growing from the bottom of the ocean; but the obſervation of later naturaliſts have decidedly proved them to be the fabrication of different minute animals, which however inſignificant they may appear to the unobſerving part of mankind, are, from their immenſe, their inconceivable number, of more conſequence than generally ſuppoſed: it is to the accumulated myriads of them that we owe part of the iſland on which we live; our hills are in many places full of

them, and ſome rocks are entirely of their formation. New Iſlands have been formed within the memory of many now living; and many ſeas are becoming every year more difficult to navigate, being almoſt choaked up by the habitations of animals almoſt too ſmall for human perception.

Bell Glass of Corals and Shells, No. 1.

Contain an aſſemblage of upwards of one hundred rare Shells and Corals, beautifully diſplayed under a very large bell glaſs on a tripod ſupported by crabs. The contents have moſtly their names on them.

Bell Glass, No. 2.

With a very large PAPER NAUTILUS, (*Argonauta Argo.*)

This is the animal from which man is firſt ſuppoſed to have learned the art of ſailing. Pope, in his Eſſay on Man, alludes to it, where he ſays,

> " Learn of the little Nautilus to ſail,
> " Spread the light oar, and catch the flying gale."

Pliny deſcribes it thus, " But amongſt the principal miracles of nature is the animal called Pompilos, or Nautilus: it aſcends to the ſurface of the ſea in a ſupine poſture, and gradually raiſing itſelf up, forces by means of its tube, all the water from the ſhell, in order that it may ſwim the more readily; then throwing back the two foremoſt arms, diſplays between them a membrane of wonderful tenuity, which acts as a ſail, while with the remaining arms it rows itſelf along, the tail in the middle acting as an helm to direct its courſe; and thus purſues its voyage like a little ſhip, till alarmed by any appearance of danger, when it takes in the water, and deſcends."

Bell Glass, No. 3.

Contains the CHAMBERED NAUTILUS, (*Nautilus Pampilus,*) on a group of Corals, and other Marine Productions.

Bell Glass, No. 4.

With a ſection of the CHAMBERED NAUTILUS, ſhewing its curious internal ſtructure.

Bell Glass, No. 5.

This contains ſeveral fine Marine Productions, among which is the *Madrepora Faſciculara*, *Madrepora Anguloſa*, and another, unknown; the round *Angler Lophius Muricata*, that rare and beautiful ſhell; the *Venus Dione*; a remarkably fine ſpecimen of the Thorny Woodcock, *Murex Tribulus*; and ſeveral other rare Fiſhes, Crabs, and Shells.

Bell Glass, No. 6.

MINERALS.

Beautiful GROUP of CRYSTALS, of extrordinary ſize, from the mines of Dauphiny; preſented by Thomas Allan, eſq; of Edinburgh.
PIPE CHALCEDONY, from Iceland.
Large ſpecimen of OPAL in the Matrix.
Three OPALS, poliſhed.
NATIVE GOLD, or LIMESTONE, from Tranſylvania.
Iriſh GOLD, from the Wicklow Mountain.
ORIENTAL CAT'S EYE.
WHITE CAT'S EYE, from Germany.
AQUA MARINE or BERYL, poliſhed.
FLOUR SPAR, from Derbyſhire.
GROUP of AMETHYST CRYSTALS, from Hungary.
GOLD SANDARAK.
Beautiful BROWN SPAR, with ſnow-like appearance, from Tranſylvania.
BROWN SPAR, in Cryſtal.
Fine ſpecimen of IRIDESCENT IRON, in Cryſtal, from the Iſle of Elba.
Splendid IRON ORE, from Hungary.
Bubbled MALACHITE COPPER ORE, with mountain Blue, from Siberia.
MALLEABLE COPPER, from Cornwall.
COPPER ORE, from ditto.
MODEL of the PIGOT DIAMOND, valued at 35,000l.
Variety of CRYSTALS, from Buenos Ayres; containing Silver and other extraneous matter.

MISCELLANEOUS ARTICLES.

Numerous extraordinary and ſtupendous remains of non-deſcript animals, found in the vicinity of the rivers Ohio, Wabaſh, Illinois, Miſſiſſippi, Oſage, Miſſouri, &c. brought to England by a gentleman who paſſed ſeveral years on a mineralogical tour in unfrequented parts of North-America. They conſiſt of different parts of animals, ſuch as heads, vertebræ, ribs, grinders, and horns; among which, the

moſt worthy of remark is the foot of a clawed animal of the *feræ* genus, or tiger ſpecies. This paw, clothed with fleſh, ſkin, and hair, filled with muſcles, flexors, and cartilages, muſt, when dilated on its prey, have covered a ſpace of ground four feet by three. Did the animal to whom it appertained partake of a ſtrength of body proportionate to the ſize of this foot, and at the ſame time add the agility and ferocity of the tiger to his unequalled magnitude, he muſt have been the terror of the foreſts, and of mankind. That ſuch an animal did exiſt, this ſpecimen is a ſufficient proof; nor did it alone inhabit America, for we have reaſon to believe that an animal ſimilar in ſome reſpects to the above, once had poſſeſſion of our iſland; for various remains of non-deſcript animals have been frequently dug up of late in different counties. The thigh-bone marked A. which is nearly four feet in length, was found in digging the Ellesmere Canal in the year 1803, near the village of Wrenbury, in Cheſhire. B. is one toe of the clawed foot. C. ſeveral joints of the tail, which muſt in the living animal have been as thick as an ordinary oak tree. D. one of the vertebræ of the back; the paſſage for the ſpinal marrow is ſo large, that a man's arm may with eaſe paſs through it. E. is a ſection of a ſpiral tuſk, thirteen feet in length. F. a carnivorous grinder, nine pounds weight, being one hundred and forty-four times as heavy as that of a horſe. G. a large grinder of another ſpecies of theſe ſtupendous non-deſcripts, evidently an herbivorous animal. On the ſubject however of theſe Incognita but a few words are neceſſary: they have been on the whole the ſurpriſe of the enlightened naturaliſt, and the admiration of the claſſical ſcholar; we therefore refer thoſe, who wiſh to be more particularly informed reſpecting theſe remains, to a pamphlet, entitled "*Memoirs of Mammoth and other extraordinary and ſtupendous Bones*,"* written by the gentleman who brought them to England, and ſold them to the Proprietor of this Muſeum.

Glaſs Caſe, containing an EGYPTIAN MUMMY.

The ancient methods obſerved by the Egyptians in embalming human bodies, according to Herodotus, were performed after this manner: "There were certain perſons appointed for the buſineſs, "who had three prices according to the workmanſhip. In the moſt "eſteemed method of embalming, they extracted the brains by the "noſe with a crooked iron, and then poured in drugs; afterwards "they opened the body, took out the bowels, waſhed the inſide with "palm wine, and having rubbed into it pounded perfumes, filled the "cavity with myrrh, caſſia, and other ſpices, and then ſewed it up. "After this they waſhed the body with nitre, and let it lie ſeventy "days; and having waſhed it again, bound it up in folds of linen, "beſmearing it over with gums, which the Egyptians uſed inſtead of "glue. The relations then took home the body, and encloſing it in "the wooden figure of a man, placed it in the catacombs. Another

* This Pamphlet may be purchaſed at the Muſeum.

"method of embalming, was injecting turpentine of cedar with a pipe "into the body, without cutting it; they then ſalted it for ſeventy "days, and afterwards drew out the pipe, which brought along with "it the inteſtines. The nitre dried up the fleſh, leaving nothing but "ſkin and bones. The third way was only by cleanſing the inſide "with ſalt and water, and ſalting it for ſeventy days." From what Diodorus obſerves, one would imagine that there was a way of preſerving the bodies much ſuperior to either of the former; for he ſays, their eye-brows and eye-laſhes, with the form and appearance of the whole body, were ſo well preſerved, that they might be known by their features; whence many of the Egyptians kept the bodies of their anceſtors in houſes adorned at a great expenſe; and had the pleaſure to ſee their forefathers for many generations back, and to obſerve all their features as well as if they were living. It does not however appear that any bodies were ever diſcovered embalmed in this manner.

The Mummy in this collection was brought from Egypt by the French, and taken from them by an Engliſh privateer, and was remarkable for containing only the head, and part of the thigh and leg bones, which were enveloped in folds of fine linen, nearly three inches thick. The linen in ſome parts was as white and perfect as when firſt done, and on the legs there was ſome of the fleſh ſtill remaining, although, from a moderate calculation, it muſt have been embalmed upwards of two thouſand years.

HEAD of the ancient IRISH ELK, or MOOSE DEER. The ſpecies extinct. This head was found nine feet under ground in a marl pit, on the lands of Dewſtown, the ſeat of the Right Hon. Lord Farnham, in the county of Meath, Ireland, Anno 1801. Preſented by Leonard M'Nally, eſq; of Dublin.

The HAND of a LADY, with the Blood-Veſſels, finely injected, to ſhew the ſituation of the veins, &c. Preſented by Allan Burn, eſq; Lecturer of Anatomy, Glaſgow.

A MUMMY of the WHITE IBIS. The White Ibis, though now unknown to the Egyptians, was formerly worſhipped by them as a deity, in conſequence of the great ſervice it did them, in deſtroying the vaſt quantities of ſerpents and reptiles with which that country was infeſted. The veneration for them extended even after their death; for whenever the body of a dead Ibis could be found, it was carefully embalmed after the manner of the mummies. Mr. Bruce, the Abyſſinian traveller, mentions his having opened ſeveral of them, in which the bones, and even ſome feathers, were entire. Buffon ſays, "he received ſeveral of theſe mummies from the bird pits in "the plains of Saccara; that the ſhape of all of them was a ſort of "doll, formed by the bandages which incaſed the bird; of which "the greater part fell into black duſt when the ligatures were "removed." They are generally preſerved in earthen jars, with the cover cemented down; but ſometimes, as is the caſe in this, put into a kind of coffin made of ſycamore, the covers of which were deco-

rated with hieroglyphics, which are yet viſible in the one in this Muſeum.

A MUMMY of the IBIS, opened to ſhew its contents. Haſſelquiſt, and other naturaliſts and travellers, who have viſited the catacombs of Egypt, ſay that the Mummies of the Ibis contain in general little but black duſt, which is believed to be the remains of the bird; but that they were informed that ſometimes, though very rarely, the bones and feathers were found in them: this is the caſe with the one in this Muſeum; the cloth in which it was wrapped, the bill, bones, and feathers, are ſtill entire. This very intereſting and curious article was added to the collection by the liberality of Jacob Wilkinſon, eſq; of Bath, whoſe brother, C. Wilkinſon, eſq; of Clapham, brought it from Egypt. What are our boaſted monuments of antiquity? the dates of our churches and cathedrals (though crumbled and crumbling into duſt) are but as yeſterday when compared with the age of a few periſhable feathers, which had exiſtence on the banks of the Nile perhaps two thouſand years before the foundation ſtone of the firſt of them were laid. What a field for reflection does the contemplation of this article open to our view.

"Son of to-day, thy daring hopes are vain,
"That aught of thee my lengthened date ſhall gain."

Large HORN of the AMERICAN STAG, preſented by Capt. Mars, of America.

ELEPHANT'S HEAD and GRINDERS, preſented by Samuel Staniforth, eſq; Liverpool.

HEAD of the LEOPARD.

The SKULL of the BABYROUSSA, or INDIAN HOG. The moſt diſtinguiſhing characteriſtic of this animal conſiſts in four large tuſks, the two ſtouteſt of which proceed, like thoſe of the wild boar, from the under jaw, pointing upwards; the two others riſe up like horns, on the outſide of the upper jaw, juſt above the noſe, and extend in a curve above the eyes almoſt touching the forehead, and are about ſeven inches long. The uſe this animal makes of theſe tuſks is in ſleeping, which they do, as is ſaid, by hooking them on the branches of trees. The Babyrouſſa is found in ſeveral of the iſlands of the Eaſt-Indies.

The HORN of the IBEX.

HORNS of the ROE-BUCK.

EGG and THIGH BONE of an OSTRICH.

LEG of a CASSOWARY.

Three NOSES of the SAW-FISH. The largeſt of theſe is three feet ſeven inches long, eight inches broad at the baſe, and four at the point; it is armed at the ſides with thirty-eight ſtrong teeth, about an inch and a half long, and two inches from each other.

The JAWS of an enormous SHARK, which meaſures ſix feet ſix inches in circumference.

The FOSSIL TOOTH of a SHARK, nearly four times as large as thoſe in the above jaws.

The CAVITY of a WHALE'S EAR.

The JAWS of a PORPOISE.

SHELLS of the Nine and Three-banded ARMADILLOS.

Part of the HIDE of a RHINOCEROS, remarkable for its thickneſs, being piſtol proof.

SKULL of the WALRUS. This animal inhabits the Northern Seas, and grows to an amazing ſize; the tuſks are ſometimes upwards of two feet in length.

HORNS of the WHITE ANTELOPE. The horns of this animal are very long and ſlender, of a black colour, and ſharp pointed. The animal is of a milk-white colour, and inhabits the iſland of Gow Bahrein, in the Gulf of Baſſora.

TEETH of the HIPPOPOTAMUS, which are of vaſt ſtrength and ſize, particularly the tuſks or canine teeth of the lower jaw; they ſometimes meaſure more than two feet, and weigh upwards of ſix pounds.

Glaſs Caſe, containing four different BEAKS and HEADS of the CALAO, or HORNBILL BIRD; remarkable for the ſingular appendages on the upper mandibles. No. 1. Helmet Hornbill. No. 2. Pier Hornbill. No. 3. Rhinoceros Hornbill. No. 4. Philippa Hornbill.

An ELEPHANT'S TAIL.

WASP'S NEST, from South-America, on the branch of an oak, on which it was formed. The hole in the ſide is cut to ſhew the ſtructure of the combs. The entrance to it is at the bottom, and is contrived in ſuch a manner that no rain can enter.

SKELETON of an OSTRICH.—SKELETONS of BIRDS, viz. the Creeper, Snipe, Oyſter Catcher, Lark, Starling, Green Linnet, Fieldfare, and Moor Game.

VERTEBRÆ of the Spermaceti WHALE.

Specimen of FOSSIL OAK, found in a quarry near Coventry.

THE ARMOURY.

Charm'd with the fight, the ardent breaſt is fir'd
With thoughts like thoſe which ancient bards inſpir'd.

THIS department of the Muſeum is fitted up in an appropriate and elegant manner, repreſenting the interior of the hall of one of the caſtles of our ancient nobility. The armour and various implements of war diſplayed in trophies, or on figures placed under Gothic canopies, forcibly call to our minds the times of chivalry and the days when our anceſtors, by their deeds in arms, carried victory and conqueſt to every part of the world, and were "ſingle-handled" able to reduce that country to a ſtate of vaſſalage that now threatens the independence of every ſtate on the continent. Amongſt this collection of antiquities the Armour is what attracts the attention of every viſiter. Here an ample field will be open for meditation: the form, make, and materials of theſe war-ſuits will be a ſource of admiration and ſurpriſe. When a thought is caſt on the warriors, whoſe ſtrength enabled them to ſuſtain ſuch a weight of metal, and at the ſame time were capable of exerting themſelves, performing under it every exploit, and enduring every toil of war, he will feel himſelf as the offspring of a dwindled race of mankind.

The FIGURE on the Horſe is dreſſed in HAUBERK, or ancient Suit of Mail, ſuch as was worn in the army of William the Conqueror, when he invaded this country. It is compoſed of ſmall rings of iron, which, paſſing through four others, are riveted together in ſuch a manner as not to prevent any motion of the body. Beſides their ordinary clothes, the Knights wore under the Hauberk a looſe garment, called a Gambeſon, which deſcended as low as the knee; it was ſtuffed with woollen or cotton, and quilted; its uſe was to deaden the ſtroke of a ſword or a lance, which, though it did not divide the mail, might ſeverely bruiſe the body. Between the Hauberk and Gambeſon a breaſt-plate of iron, called a Plaſtron, was occaſionally put on; and over all, men of family wore ſurcoats of ſatin, velvet, or cloth of gold and ſilver, richly embroidered with their armorial bearings. Thus enveloped, and loaded with ſuch a number of weighty incumbrances, it is by no means wonderful that in the midſt of ſummer, in the heat, duſt, and preſs of an engagement, men at arms ſhould be ſuffocated in their armour; an event which we learn from hiſtory often happened. Beſides the inconvenience of being thus ſwathed up like an Egyptian mummy, a man could have but little power of action, and this in ſome meaſure accounts for the ſmall number of knights ſlain in an engagement with cavalry only: probably as ranſom was ſo great an object in thoſe days, they rather wiſhed to capture than kill their enemies, and for that purpoſe endeavoured to unhorſe them; for when they were overturned, they were immoveable, and lay on the ſpot till remounted by their friends, or overtaken by their enemies. This venerable relic of antiquity came originally from the Caſtle of Tong, in Shropſhire, and was preſented by the Rev. Mr. Buckridge to the Muſeum of the late Richard Green, eſq; of Lichfield, from whence it was purchaſed by the preſent proprietor. It is preſumed, that this Hauberk is the only perfect one of the kind remaining in England, as there is not a ſpecimen exhibited either at the Tower or Britiſh Muſeum. In the Treatiſe on Ancient Armour, written by the late Francis Groſe, eſq; F.A.S. a deſcription is given of this identical Suit of Mail, in vol. ii. page 9, plate 21.——This figure is mounted on a fine Horſe, which is likewiſe covered by a ſuit of ancient Armour, compoſed of ſeveral thouſand plates of ſteel and braſs, firmly united by riveted iron rings, of the ſame conſtruction as the Hauberk, along with which it was ſuppoſed to have been worn. This kind of horſe armour is believed not to have been common, even at the time it was in uſe, as not a ſingle ſpecimen except the preſent has reached us, nor has a correct repreſentation of it been publiſhed. On this account it muſt be highly intereſting to thoſe who are fond of examining ſuch relics of antiquity.

The FIGURE on the left-hand is dreſſed in a complete ſuit of PIKEMEN'S ARMOUR, worn by the arquebuſiers and muſketeers, at the firſt introduction of fire-arms. It is in fine preſervation, and belonged to an officer, who probably uſed it at the memorable ſiege of Latham-Houſe, as it was known to have been preſerved at Croſs-Hall, in that neighbourhood, a conſiderable number of years. It was preſented to the Muſeum by Col. Stanley, M.P. the preſent proprietor of Croſs-Hall.

On the right hand is the FIGURE of a KNIGHT in a ſuit of bright Steel Armour, of the time of Queen Elizabeth: this is called Plate Armour, and is of more modern date than the mail, as it came into general uſe about the middle of the fourteenth century. At its firſt introduction it was made of prodigious ſtrength and thickneſs, and was fitted to every part of the body ſo cloſe, that it was impoſſible to pierce it with a lance.

An HAUBERGEON, or SHIRT of MAIL. This is made in the ſame manner as the Hauberk, only it is without ſleeves, and reaches no lower than the waiſt. By the ſtatute of Winchester, paſſed in the thirteenth year of the reign of Edward I. every man poſſeſſing lands to the yearly amount of fifteen pounds, and forty marks in goods, was obliged to keep in his poſſeſſion an Haubergeon, an iron head-piece, a ſword, a knife, and a horſe.

A PERSIAN COAT of MAIL, made nearly in the ſame manner as the Hauberk, only the work is more beautiful. The collar is of crimſon velvet, on which in gold ſtuds is written in Perſian the following characters:—"*Ali Fatima Huſain Haſan Alla Mohammed.*" On the breaſt is a Taliſman, or charm, to preſerve the wearer's life.

A BRIGANDINE JACKET. This is mentioned in Jeremiah, ch. li. ver. 3. and in an Act paſſed by Philip and Mary in 1558. It was uſed principally by the archers, and took its name from the light-armed troops who firſt wore it, being called Brigands. It is compoſed of a number of ſmall plates of iron, ſewed upon quilted linen through a ſmall hole in the centre of each plate, the edges laid over each other like tiles, or the ſcales of a fiſh; theſe ſcales are covered with cloth, ſo as to have the appearance of quilting; it is proof againſt the puſh of a pike, or the ſtroke of a ſword; and yet is extremely pliable to every motion of the body. The Helmet for this ſuit is called a Skull, or Steel Cap.

A great variety of PIECES of ARMOUR, for all parts of the body; among which are ſeveral pieces preſented by the Corporation of Stafford to the Lichfield Muſeum, and a number of Back and Breaſt Plates of different kinds, given by the Corporation of Coventry to this Collection.

Impreſſion of a fine ROMAN HELMET.

A ſuit of Dutch Light-horſe ARMOUR and HELMET, with three moveable bars in front. It belonged to the ancient family of the Venables, in Cheſhire.

An open-fronted HELMET, found in a ditch near Wigan, a few years ſince, on the ſpot where the Earl of Derby had a battle with the Parliament forces, in the year 1651, in favour of Charles II.

A HELMET, found at Carthage, about the year 1800, by J. Jackſon, eſq; of Baſinghall-ſtreet, London. It greatly reſembles the Morions worn in Europe in the time of James I.

A fine TILTING HELMET, reſembling the Roman one.

A MORION, or open kind of HELMET, without viſor or beaver, ſomewhat reſembling a hat; it was commonly worn by the Arquebuſiers and Muſketeers.

An open-fronted HELMET.

Several POT HELMETS, or IRON HATS, with broad brims.

The PLASTRON, or BREAST-PLATE, uſually worn under the Hauberk, &c.

A ROUNDEL, RONDACHE, or NORMAN SHIELD. *See Groſe's Ancient Armour*, plate 34, vol ii.) This ſhield derived its name from its circular figure; it is made of circular pieces of iron, faſtened together, ſtudded with braſs, and lined with leather, but they were ſometimes compoſed of oziers, boards of light wood, ſinews or ropes covered with leather, plates of metal, or ſtuck full of nails in concentric circles or other figures. The Norman ſoldiers carried this ſhield, faſtened to a ſtrap and hung over the ſhoulder. The Roundels of metal, particularly thoſe richly engraved or emboſſed, ſeem rather to have been inſignia of dignity, anciently borne before generals or great officers, than calculated for war, moſt of them being too heavy for convenient uſe, or too ſlight to reſiſt the violence of a ſtroke, either from a ſword or battle-axe.

Large Gun Case.

Singular IRON TURKISH BRIDLE BIT.

Another BRIDLE BIT of a different make.

An Ancient SPANNER and PRIMER.

A very ancient and uncommon ARQUEBUSE MATCH-LOCK; the but very much curved, and richly ornamented with inlaid work in ivory: on which is alſo a repreſentation of a Spaniſh ſoldier in the dreſs of the age. The trigger is about twelve inches long, ſhaped to the curve of the but. It is ſaid to have been taken on board the Spaniſh Armada.

A very curious MAHRATTA HORSEMAN'S SWORD, between four and five feet long, of excellent temper; the blade, which is very thin, is fixed into a kind of gauntlet, that reaches nearly to the wearer's elbow, and in which there is a graſp acroſs the inſide for the hand. *See Groſe*, pl. 50. No. 1 and 2.

HIGHLAND PISTOL, braſs mounted.

TWO HIGHLAND PISTOLS, made of iron, and of different conſtructions.

A SWORD, with a PISTOL in the handle: taken from a French officer on board the Ville de Paris.

A very curious double WHEEL-LOCK MUSKET, from the Grand Duke of Tuſcany's Gallery at Florence. This piece has two pans, two wheels of ſteel, and two flints; by which contrivance it diſcharges twice with once loading.

A TURKISH GUN, bell-mouthed; the barrel fluted and damaſked, a ſnaphaunch lock, and the ſtock inlaid with ivory.

A TURKISH MUSKET, the ſtock, lock, and barrel, like the former, but richly ornamented, and mounted with ſilver. This curious piece was taken from the Turks by Count Orlow, the Ruſſian General; afterwards exchanged with an Engliſh gentleman for a fine horſe; the gentleman preſented it to the Right Hon. Lord Paget, who gave it to the Lichfield Muſeum, from whence it was purchaſed by the preſent Proprietor.

A very curious modern FOWLING-PIECE, made by C. Malbon, of Cheſter; it has two pans, the hindmoſt is ſhut by means of a ſhort lever or regulator, while the foremoſt is uſed. It fires twice with once loading.

A moſt curious and beautiful ancient SPANISH WHEEL-LOCK FUSEE, the whole ſtock of which is entirely covered with the moſt exquiſite inlaid work in ivory and mother of pearl, repreſenting a variety of figures of men, beaſts, birds, flowers, &c.

A beautiful ſmall FRENCH PIECE, of very capital workmanſhip.

A MAGAZINE GUN, made in Italy in the year 1666, which, when loaded at the but end, may be diſcharged by moving a ſhort regulator, ten times in leſs than half a minute.

MAGAZINE GUN, made at Pontefract, in Yorkſhire, by Martin Raynald; it may with eaſe and ſafety be fired eight times in half a minute with only once charging.

A LONG GUN, purchaſed at the late ſale of the Leverian Muſeum. With this piece General Wedderburne (brother to Lord Loughborough) was killed, when reconnoitering a fort in the Eaſt-Indies. The diſtance from the fort was ſo great, that the ſhot could not be accounted for, until the place was taken, and this long gun diſcovered.

Several other Guns; the whole forming a complete ſeries from the firſt invention, and ſhewing their gradual improvement.

SNAPHAUNCH PISTOL-STOCK, curiouſly inlaid.

A ſingular PISTOL, with an inlaid ſtock.

A WHEEL-LOCK PISTOL, made in Germany in the year 1586.

A brace of curious FRENCH DOUBLE-BARRELED PISTOLS.

A brace of ancient RIFLE-BARRELED PISTOLS.

A number of ancient GUN LOCKS.

A MAGNIFICENT TURKISH SWORD, called the YATTAGAN, the hilt and ſcabbard of ſolid ſilver of the fineſt workmanſhip; the blade is bent the reverſe way from the ſcymitar, and is worn before, attached to an embroidered belt.

In this caſe are alſo a variety of ancient SPURS, many of them very curious.

LANCE, called ASSIGAY, uſed by the Caffraria Chiefs, Cape of Good Hope.

MAHRATTA DAGGER, of curious conſtruction.—*See Groſe's Ancient Armour*, plate 56, No. 4, vol. ii.

Over the glaſs caſe that contains the Guns are diſplayed a variety of ancient Weapons, many of which are at preſent unknown; among them is the Norman Bill, and ſeveral Pikes, Halberts, &c. taken on board the Spaniſh Armada.

The Bottom Caſe contains the following miſcellaneous articles:—

An ancient MANUSCRIPT MISSAL on vellum, finely illuminated, written before the invention of printing.

A READING-DESK, for holding the above, which folds together, and is made of one piece of wood.

Several pieces of ROMAN POTTERY, found near Colcheſter, in Eſſex.

The following Fire-Arms are arranged on each ſide of the Large Glaſs Caſe, beginning at the right hand:—

An ancient ENGLISH MATCH-LOCK MUSKET, of the firſt invention; it belonged originally to the family of the Wingsfields of Alderton, in the county of Salop, whoſe names and arms are engraved on two eſcutcheons of mother of pearl on the ſtock, the barrel is very heavy, and nearly four feet long: on it is the date 1615.

Another MATCH-LOCK, very large and heavy, dated 1640.

An ancient ENGLISH FOWLING-PIECE, with a ſnaphaunch lock, the ſtock richly inlaid with ivory and pearl ſhells engraved. This piece is ſuppoſed originally to have belonged to the Skeffington family, formerly owners of Fiſherwick, now the property of the Marquis of Donegal.

Ancient MATCH-LOCK, with ſingular ſtock.

BLUNDERBUSS PISTOL, braſs barrel.

Large BLUNDERBUSS, braſs barrel. This piece the Duke of Argyle had with him at the Battle near Dunblaine in Scotland in the year 1715. A ſervant of the Duke preſerved his maſter's life by ſhooting a rebel with it, who had preſented his piece at his Grace, with a deſign to kill him. It was given by the above ſervant to Mr. Wickens of Birmingham, who gave it to the Lichfield Muſeum, from whence it was purchaſed by the preſent Proprietor.

A Perſian MATCH-LOCK, with a ſquare barrel, inlaid with gold; the ſtock ſplendidly ornamented with painting and gelding.

Another PERSIAN GUN, richly inlaid with gold.

A curious Indian Match-Lock MUSKET.

Ancient CALABRE, Snaphaunch Lock.

On the left hand of the Caſe are the following Fire-Arms:—

An American RIFLE, taken at Fort Waſhington.

SPANISH FOWLING-PIECE, with curious Lock.

Ancient SNAPHAUNCH MUSKET.

WHEEL-LOCK MUSKET.

CHINESE HALBERT, the handle inlaid with Mother of Pearl.

A ſingular SWORD, uſed by the Tartars.

A CHINESE SHIELD, covered with Buffalo's hide, japanned.

A MAMELUKE'S SHIELD, made of a Rhinoceros's hide, bullet proof.

Two HIGHLAND SWORDS and TARGETS.

A variety of ancient SWORDS, of different nations.

A large Two-handled SWORD, nearly ſix feet long.

Singular IRON PIKE and GUN REST.

Great variety of GUN LOCKS, ſome of them very curious.

HALBERT, made in the time of Oliver Cromwell, formerly carried before the Mayor of Cheſter.

INDIAN MATCH-LOCK.

A SACK BOTTLE.

An ancient HAT, made of the undreſſed ſkin of the wild boar.

A Pair of WARRIOR'S GLOVES, made of Buffalo's hide.

An ancient BUFF GAUNTLET, or covering for the left arm, worn in the time of Charles I. by Sir Francis Rhodes, of Balborough-hall, in Derbyſhire. It is contrived to anſwer the purpoſe of a ſhield, being compoſed of three ſkins of buff leather, and of ſtrong paſteboard.—It is figured in *Groſe's Ancient Armour*, vol. ii. plate 39. fig. 5. and 6.

An ancient CROSS-BOW, remarkably ſtrong.

The ſtock of a very rich ARCUBALISTA, or CROSS-BOW, found about the year 1773, by ſome labourers on Boſworth Field, renowned in hiſtory for the victory obtained by the Earl of Richmond (afterwards Henry VII.) over Richard III. in which he loſt his crown and life. It is ſo exquiſitely carved, as to authoriſe a conjecture that it was the weapon of no mean warrior: indeed, very few ſpecimens of the chiſel of the preſent day excel it. The bow is unfortunately loſt, and the iron work that remains is much corroded by lying, as it aſſuredly did, 298 years in the ground; on it there are yet to be diſcovered a number of ſtuds and ornamental pieces of gold. It is made of yew, the compact texture of which wood has ſo well preſerved it from decay.—In a ſcarce poem, written by Charles Allen, which contains a particular account of the Battle of Boſworth, are the following lines:—

"The archers ſtript their ſleeves, who muſt define
"The controverſie here debated on.
"The ſun of Richmond's hope was in the ſigh
"Of Sagittarius, and there chiefly ſhone.
"The feathers of their ſhafts ſung as they went,
"Being newly ſet to the one-ſtring'd inſtrument."

This fine remain of antiquity is figured and deſcribed in the Gentleman's Magazine for February 1784, and which, with ſeveral other antiquities in this collection, were exhibited before the Royal Antiquarian Society, in the year 1803.

CHINESE QUIVER and BOW CASE, made of leather, emboſſed and gilt.

CHINESE BOW and ARROWS.

A number of PIKES and LANCES from Africa.

Great variety of IRISH PIKES, ſuch as were uſed in the late Rebellion.

A collection of Ancient and Foreign STIRRUP IRONS and BRIDLE BITS; ſome of them of an extraordinary ſize and weight.

Ancient BRASS HANGING CANDLESTICK.

Small Glass Case.

An ancient SWORD, formerly uſed by the Engliſh Noblemen in their hunting excurſions. On the hilt and ſcabbard of this ſword, (which are of ivory,) are moſt exquiſitely carved the death of every animal of the chaſe, compriſing more than ninety-ſeven figures.—This admirable work of art ſerves in ſome meaſure to ſhew, in what a magnificent manner our anceſtors followed their favourite amuſements; and it is imagined that few artiſts of the preſent day could produce ſo exquiſite a performance. Within the ſcabbard are a knife and fork.

A very rich pair of SPURS, found in the ſpring of 1800, in ploughing Boſworth Field; they are of braſs enamelled, and very perfect.

A ſingular IRON SPUR, the rowels of which are 18 inches in circumference.

CURIOUS IRON SPUR, enchaſed with ſilver, found on Boſworth Field.

Ancient IRON SPUR.

Pair of GILT BRASS SPURS, ſuch as are worn by the Knights of the Bath, on days of ceremony.

Ancient BRASS SNUFFERS and STAND, of curious workmanſhip.

Ancient IRISH BRASS SWORD, found near Navan, in Ireland, ſuppoſed to have been in uſe before iron was known in that country.

Ancient BRASS CELT, found at Winwick, near Warrington, Lancaſhire.

IRON ARROW, purchaſed from the Leverian Muſeum, found in the year 1792, in the field on which ſtands the Caſtle of Harwood, Yorkſhire.

LEATHER SKULL-CAP.

CHINESE SWORD, of ſingular make, with a ſcabbard of wood, curiouſly carved.

An ancient BRASS DISH, ſuppoſed to be Saxon; on the bottom is a rude repreſentation of the Annunciation, and round the edge a legend in Saxon letters.

A MOORISH SPUR, which weighs one pound three ounces; inſtead of rowels, it is armed with a ſharp ſpike of the thickneſs of a perſon's finger, and about four inches in length. This ſingular inſtrument appears better deſigned to kill a horſe, than to urge it forward.

A large TURKISH POWDER-FLASK, mounted and embroidered with ſilver, formerly belonging to Prince Eugene, at the ſale of whoſe effects it was purchaſed.—Preſented by Henry Blundell, eſq; Ince-Hall.

An ancient LEATHER BOTTLE, embroidered with ſilk; it holds nearly a gallon.

BANDILEERS, or WOODEN CYLINDRICAL BOXES, uſed by the Muſketeers of the reign of James and Charles I. for carrying their powder. Twelve of theſe were fixed to a belt worn over the left ſhoulder. The bag that carried the bullets was ſuſpended to the belt.

Ancient CORNET. This horn is ſuppoſed to be of the earlieſt invention, and to have been one of the firſt kind of muſical inſtruments uſed in a military band.

Case in Armoury.

A curious ancient DISH, inlaid with Mother of Pearl and various coloured Glaſs, &c.—Ancient WORK BASKET, made of Cane and different coloured Silk.—Large HAT, made of Cane, curiouſly wrought, of the time of Elizabeth.

Pair of ancient STOCKINGS, of crimſon Silk and Gold; they are very ſtrong, and curiouſly ornamented on the top: ſuppoſed to be of about the time of James I.

Case, No. 2, in Armoury.

SHOES OF DIFFERENT NATIONS.

ROMAN SANDAL. The ſtrings which lace it in front, the ſides, and bottom, moſt ingeniouſly made out of one piece of leather; it was found at the depth of fourteen feet, in cutting peat in Hawford Moſs, Cheſhire.

TURKISH SLIPPER, of yellow leather.

PERSIAN SHOE, red leather, embroidered with ſilver.

EAST-INDIA SHOES, of curious form, and highly ornamented.

A Pair of BRAMIN'S SHOES, from the Eaſt-Indies. Perhaps no article of dreſs to the eyes of Europeans will appear more extraordinary than theſe ſhoes. They are made of hard wood of one piece, in the form of the ſole of the common ſhoe, raiſed from the ground about the height of a patten, by a projecting piece of wood being left at the foot and at the heel. The means by which they are faſtened to the feet is by a peg of wood, that ſtands between the two largeſt toes, which ſecures them in walking.

CHINESE MEN'S SHOES; one of them of Cane, beautifully wrought; the other of Satin embroidered: the ſole of woollen cloth, near two inches thick, and bent up before in ſuch a manner as to keep the toes conſtantly raiſed.

Pair of SHOES worn by Ladies in China, whoſe feet have been cramped by the uſe of the iron ſhoe; and a Model of the Leg and Foot. Theſe are of a ſize ſo extremely diminutive that on the firſt view it appears impoſſible they could have been worn by a full-grown perſon; they are rather more than four inches long, and are not an inch wide in the middle. This ridiculous cuſtom is ſaid to be performed by breaking the bones of the feet of the females while infants, bending the toes under the ſoles of the feet, applying a tight bandage, and over that an iron ſhoe, which prevents the feet from enlarging, and render theſe unfortunate victims of faſhion cripples for life.

An AFRICAN SANDAL.

A RUSSIAN LADY'S WINTER SHOE; it is of leather, with a ſole of wood, lined throughout with thick fur.

MAUCASON, or SHOE of the NORTH-AMERICAN INDIANS, ornamented with dyed porcupine quills.

SNOW SHOE, of a Child, from Canada.

THE END.

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Richard Crattwell, Printer, St. James-Street, Bath.

MEMOIRS

OF

MAMMOTH,

AND VARIOUS

OTHER EXTRAORDINARY AND STUPENDOUS

BONES,

OF

INCOGNITA, OR NON-DESCRIPT ANIMALS,

FOUND

IN THE VICINITY

OF THE

OHIO, WABASH, ILLINOIS, MISSISSIPPI, MISSOURI,
OSAGE, AND RED RIVERS, &c. &c.

PUBLISHED

FOR THE INFORMATION OF THOSE LADIES AND GENTLEMEN, WHOSE TASTE AND LOVE OF SCIENCE TEMPT THEM TO VISIT THE

LIVERPOOL MUSEUM.

BY TH. ASHE, ESQ.

"His Bones are as strong pieces of brass; his Bones are like bars of iron." JOB.

LIVERPOOL,
PRINTED BY G. F. HARRIS.
1806.

INTRODUCTION.

A Gentleman who has passed several years in North America, and whose pursuit was the study of nature, has just returned to this country with several boxes containing objects of the highest interest to the curious and intelligent world. Conscious of the erroneous opinions which had been entertained respecting the stupendous Animal Remains found in Russia, Siberia, and the western climes, he bent his mind designedly to that particular investigation, and made researches for such materials as he knew to be necessary for the foundation of abstract truth, or reasonable hypothesis. The absence of such materials led the ingenious author of "*Notes on Virginia*," to various beautiful visions, but to no salutary or solid fact. From the same cause, the celebrated Doctor Hunter, and many others, have wasted infinite science on some favourite theory; and the world, from this wide and multifarious opinion, had to embrace, now one delusion, and

now another. Hence some thought the Bones were the remains of a giant. Many called them extraneous fossils; others regarded them as mineral substances; some said the animal was carnivorous; others as strenuously asserted it to be herbivorous, graminivorous, or mixed. At length wearied by the contest, mankind associated in one idea;—the bones were called "*mammoth bones*," without any respect to the difference in their character, and the contrasted sensibilites which such difference generates and inspires. But from the evidence of the extraordinary bones now collected, *and preserved for public inspection in the Liverpool Museum*, it is clearly demonstrated, that they are the remains of various stupendous incognita, or nondescript animals, of perfectly different propensities, dispositions, and manners of life.

Box, No. 1,

Contains the principal part of the head of a carnivorous animal. The jaws are entire, filled with grinders. The seat of

the muscles is traced along the nose, and, from their depth, must have given violent action to the nostrils and lips. Here is also a *maxillæ inferior* of the same kind of monster, but much larger, and of great weight and beauty.

No. 2,

Possesses the vertebræ, in high preservation. The *os sacrum*, and *coccygis* are connected by the ossification of the cartilage; and the bed of the coccygæi muscles are strongly visible. Through the cavity for the passage of the spinal marrow a man's arm can easily pass.

No. 3,

Has the *os ischium*, pelvis thigh, and leg bone. These bones are both ponderous and perfect.

No. 4,

Contains an object of inexpressible grandeur and sublimity. It is the foot of a clawed animal, possibly of the order of *feræ*, for the claws are sheathed and er-

tractile, in the manner of the cat, tiger, and lion. When this paw was dilated on its prey, filled with muscles, flexors, and cartilage, clothed with flesh, turgid skin, and hair, it must have covered a space of ground four feet by three. The animal to whom it appertained, with superior agility and ferocity to the tiger, with a body, too, of unequalled magnitude and strength, must have been the terror of the forest and of man. This monument stands alone. It has no competitor. It is the first and only one of such exorbitant magnitude ever discovered, or probably that ever will be.

No. 5,

Contains a rib, and fragments of ribs, not concave internally, but with the edges standing out, to give more energy, and to bear more resistance. From hence it would appear that the animal was endowed with the gift of contraction: his ribs closing together like the sticks of a fan, he could spring forward, or make a mighty leap. This box contains other

fragments, whose office in the frame is not sufficiently denoted for description.

No. 6,

Encloses four extraordinary bones. They defy the intelligence of the writer. He cannot discover what part they performed in the animal machine. He supposes them *femori* of some *incognitum* of great force, as is wonderfully expressed by the deep insinuosities in the bones, in which the tendon of the triceps, and other large muscles, three inches in diameter, could lie concealed.

No. 7,

Embraces the teeth of various animals, weighing from one ounce to ten pounds. The grinding surfaces denote the pursuits and passions of each animal. The large grinder, with parallel lines of enamel slightly indended, bespeaks the peaceable herbivorous animal, of the elephantine species. The ponderous grinder, with high double-coned processes, and interlocking fangs, denotes the cruel carnivo-

rous monster, lurking in the woods. The teeth with less indention than this, betray a mixed animal; and those which have still less indention, and which express a rotatory motion, show the animal to be graminivorous, and sometimes also mixed. This box contains twenty specimens of the above characters. Some of the teeth are elegantly stained, by the long and unremitting industry of nature; and some, from lying in contact with mineral substances, have obtained radiant and prismatic colours.

No. 8,

Contains about twenty four specimens of carnivorous grinders, of such variety of size that the animal's age can be followed from one to innumerable years. A process, which sunk into the *maxillæ*, is five inches wide, and the cones on the surface two inches deep. Some teeth exhibit nothing but the *cortex*, from which fire can be struck, and yet many are wasted by manducation. The canals, in which nerves and blood-vessels were lodged, are

perfect, and discover the great supply which prevented the waste of attrition, and made the teeth endure the compression of any hard body between the jaws. This box affords a rich contemplation.

No. 9,

Possesses the remains of an animal of the anterior world. Coming to a rock, which the naturalist had to spring, in following a vein of mineral, this grand object appeared under the deep explosion. It is the *defence* of an *herbivorous incognitum*, of ponderous volume, and amazing height. The *defence* in a state of perfection, must have been five hundred weight, implying a head of twelve hundred weight. The present fine subject, in a state of decomposition, weighs one hundred and fifty pounds, is twenty-five inches in circumference, and when (being in three parts) put together, is sixteen feet long. It is by no means in the form of that of the elephant; it makes a complete revolve, and appears as if the animal could have moved it at pleasure. The grain traverses

in diamonds, in the manner of the finest ivory, and the internal substance is as white as snow. Several thousand ages have only led this to a gradual decomposition. It may yet last many years; but must be touched with a trembling and a pious hand, by him who can admire the wonderful greatness and wisdom displayed in the operations of nature, and who can contemplate with rapture an object which, it is hoped, the vulgar will neglect, as "a dreary void."

No. 10,

Contains the tusks, *defenses*, or horns, of various animals. One may be attributed to the rhinoceros, another to the elephant, but none to the hyppopotamus or river horse. One appertained to a huge animal of the ox kind, and another to some mixed *incognitum*, of great stature. The *defense* is better than six feet; not running in a *spiral volute*, but rising nearly perpendicular, and turning off at the point. Such was never before found. The animal and his attributes are unknown.

MEMOIRS

OF

MAMMOTH,

AND OTHER

EXTRAORDINARY AND STUPENDOUS

BONES.

MEMOIR I.

I VENTURE to invite the public attention to a subject, which has for several years excited considerable curiosity, but no profound or solid investigation. In accompanying me through this arduous duty, I trust you will not expect from me a rhetoric to admire, or an eloquence to applaud; *these* are endowments which the naturalist has neither leisure to cultivate, nor to acquire: therefore I aim at nothing but simplicity and truth, and shall even divest myself of such technical terms as may perplex the reason of those who are not desi-

rous of entering into useless refinements, or tedious abstractions.

Long has the greater part of mankind laboured under difficulties, which might have been avoided by an acquaintance with the discoveries of travellers and philosophers. During the study of most sciences, we notice improvements unknown to the majority of the people; and in no one have these become more conspicuous, than in the study of natural history, and particularly that portion of it which relates to the extinct animals of the immense and interesting continent of America.

Since the wild conjectures of deluded men were banished from the annals of natural history, the study has become one of the most useful and pleasing to all of a common understanding. The science is now characterised by a manner, hostile only to the pride of the pedantic scholar. I have the honor to open some of the most extensive scenes;—let their magnificence lead the intelligent. An entrance is desired, that the wonderful greatness and wisdom displayed in the operations of nature may be contemplated with rapture, in parts ne-

glected by the vulgar as a "dreary void." For my part, although imperious circumstances frequently compelled me to suspend my views, still I bring with me an undecayed sensibility to their attractions, and a determination to perform my duty with all the assiduity and zeal I am capable of exerting, and merited by your encouragement.

It is not a little to the honor of the present age, that so many gentlemen of liberal fortune and respectable families, declining the slippery paths of political ambition, have dedicated much of their time, and not a little of their wealth, to sustain the cause of science and of literature. This observation will undoubtedly, from the association of ideas, recall the names of Walpole, of Pennant, of Jefferson, and of Banks, to your familiar recollection;—painful recollection, which informs, that the two first are now no more!

Of the writers of natural history I only mention the names of those who have endeavoured to make themselves acquainted with the object of our immediate investigation. And yet how imperfect was the information they

obtained! It could not be otherwise. Sir Joseph Banks passed the greatest part of his life in anatomizing the smallest productions of nature, such as grubs and butterflies; the province of Walpole was equally confined; Pennant never left Great Britain; and Mr. Jefferson, though amply qualified by an improved, philosophic, and energetic mind, had not met with sufficient evidence to establish irrefragible and certain conclusions. Hence the variety of conjecture, and error of judgment, which, on this subject, so universally abound. The ruling passions of mankind are excited, and the future current of their lives frequently directed, by trivial circumstances. One of the greatest painters of the age was attracted by an irresistible impulse towards his art, by a perusal of a treatise on it; and Mr. Jefferson's Notes on Virginia, at an early period gave me a turn for natural history, which has never abandoned me, even to this middle period of life. His critical and philosophic remarks on the mammoth, excited my enthusiasm, but did not satisfy my judgment; and I determined to explore the country where the bones of so stupendous an animal were so frequently found. With this intent, I gained the Apelichean; de-

scended the Ohio; traversed the depths of the valley and the highest summit of the mountain; saw the Illinois, the Mississippi, and the Missouri; and at length obtained the completion of my wish, the ardent object of my prayer,—a collection of bones, vulgarly called *mammoth bones*, but which I shall treat on under separate heads.

Before, however, I go into details of this particular nature, it may be amusing to you, to hear the conjectures of those who have passed before me, and the authorities on which such conjectures were grounded.

It is now ninety years ago, since the first remains of this animal were found in America. They were then thought to be the remains of a *Giant!* The formation of the teeth, the under jaw, the singularity and size of the bones, and the difficulty of discovering what part they performed in the animal machine, led to this egregious error; which was augmented by that disposition to the marvellous, which emigration encourages mankind to feel. This absurd idea gave way to one, not more sound. These remains were called *extraneous fossils* by some, by

by others *mineral substances*. However, but few years elapsed, before numerous attempts were made by all nations to procure a satisfactory collection of bones. At length Mr. Peale, of Philadelphia imagined he had accomplished this great object. He dug up a parcel of bones in Ulster county, state of New York, formed a skeleton, and dignified it with the name of *mammoth*, a Russian term, from *memoth*, a word derived from the Arabic *mehemot*, signifying the *behemot* of *Job*. This word is applied to any animal of extraordinary bigness: for instance, *fyhl* is the Arabic appellation for an elephant of ordinary size; but when of uncommon magnitude, the adjective *mehemodi* is always added.

The skeleton exhibited by Mr. Peale is of the following dimensions:—

Height over the shoulders 11 feet; length from the chin so the rump 15 feet; from the end of the tusk to the end of the tail 31 feet; width of the hips and body 5 feet 8 inches; length of the under jaw 3 ft. 1 inch; weight of the same 63½ lbs; length of the thigh bones 3 ft. 7 inches; smallest circumference of the

same 1 foot 6 inches; length of the bone of the fore leg 2 ft. 9 inches; length of the tusks, *defenses*, or horns, 10 ft. 7 inches; circumference of one tooth 1 ft. 6½ inches; weight of the same 4 lbs. 10 oz. The whole weighing about 1000 lbs.

Within the breast of this skeleton Mr. Peale, accompanied by a dozen of his friends, partook of a superb dinner.

The curiosity excited by this singular spectacle was augmented by the following tradition, then in circulation, and said to be delivered in the terms of a Shawanece Indian:—

"Ten thousand moons ago, when nought but gloomy forests covered this land of the sleeping sun; long before the pale men, with thunder and fire at their command, rushed on the wings of the wind to ruin this garden of nature; when nought but the untamed wanderers of the woods, and men as unrestrained as they, were the masters of the soil; a race of animals were in being, huge as the frowning precipice, cruel as the bloody panther, swift as the descending eagle, and terrible as the angel of night. The pines crashed beneath their

feet ; and the lake shrunk when they slacked their thirst. The forceful javelin in vain was hurled, and the barbed arrow fell harmless from their side. Forests were laid waste at a meal ; the groans of expiring animals were heard, and whole villages, inhabited by men, were destroyed in a moment. The cry of universal distress extended even to the regions of peace in the west, and the Good Spirit interposed to save the unhappy. The forked lightning gleamed all around, and loudest thunder racked the globe. The bolts of heaven where hurled upon the cruel destroyers alone, and the mountains echoed with the bellowings of death. All were killed except one male, the fiercest of the race, and him even the fury of the skies assailed in vain. He ascended the bluest summit which shades the source of many waters, and, roaring aloud, bid defiance to every vengeance. The red lightning scorched the lofty firs, and rived the knotty oaks, but only glanced on the enraged monster. At length, maddened with disdain, he leaped over the waves of the West, and at this moment reigns the uncontrouled monarch of the wilderness, in despite even of Omnipotence himself."

As the enthusiasm, awakened by the first discovery of these stupendous remains, began to subside, and as the effect of this sublime tradition must necessarily have yielded to reason and abstract enquiry, it was soon ascertained, that bones and skeletons of vast magnitude had been frequently found in Siberia, Russia, and Germany. Many specimens of them are to be seen in the Imperial Cabinet at Petersburgh ; in the British, Doctor Hunter's, and the late Sir Ashton Lever's Museums, and in that of the Royal Society. Several eminent naturalists, as Sir Hans Sloane, Gmelin, Daubenton, Buffon, &c. are of opinion, that these prodigious bones and tusks are really the bones and tusks of elephants ; and many modern philosophers have held the mammoth to be as fabulous as the centaur. The great difference in size they endeavour to account for, as arising in difference in age, sex, and climate ; and the cause of their being found in those northern parts of the world, where elephants are no longer natives, nor even long exist, they presume to have arisen from hence, that, in the great revolutions which have happened in the earth, the elephants, to avoid destruction, have left their native country, and dispersed themselves where

ever they could find safety. Their lot has been different. Some in a longer, and some in a shorter time after their death, have been transported to great distances by some vast inundations. Those, on the contrary, which survived, and wandered far to the north, must have fallen victims to the rigour of the climate.

In the year 1767, Doctor Hunter had an opportunity of investigating more particularly this part of natural history; and has evidently endeavoured to prove, that these fossil bones and tusks are not only larger than the generality of elephants', but that the tusks are more twisted, or have more of a spiral curve than elephants'; and that the thigh and jaw bones differ, in several respects, from those of the elephant: but what appeared to put the matter beyond all dispute, was, the shape of the grinders, which seemed to belong to a carnivorous animal, or at least to an animal of the mixed kind. Some have supposed these bones to belong to the *hippopotamus*, or river horse; but there are many reasons against this supposition, as that animal is even much smaller than the elephant, and has such remarkably short legs, that his belly reaches within a few inches of the ground.

America seems to be the quarter where the *remains* in question most abound. On the Ohio, and in many parts further north, tusks, grinders, and skeletons of unparalleled magnitude, are found in vast numbers, some lying on the surface of the earth, and some a little below it. Mr. Stanley, taken prisoner by the Indians near the mouth of the Tenessee River, relates that being transferred thro' several tribes, he was at length carried over the mountains, west of the Missouri, to a river which runs westwardly; that these bones abounded there; and that the natives described to him an animal, to which they belonged, as still existing in the northern parts of their country. Bones of the same kind have been found in salines opened on the North Holston, a branch of the Tenessee about the latitude 36 north. Instances are mentioned of like animal remains found in the more southern climates of both hemispheres; but Mr. Jefferson observes, that they are either so loosely mentioned as to leave a doubt of the fact; so inaccurately described as not to authorize the classing them with the great northern bones; or so rare as to found a suspicion, that they have been carried thither as curiosities from more northern regions. "So that on the whole

(continues he) there seems to be no certain vestiges of the existence of this animal farther south than the salines last mentioned. It is remarkable, (he adds,) that the tusks and skeletons have been ascribed to the elephant, while the grinders have been given to the hippopotamus or river horse. And yet it will not be said, that the hippopotamus and elephant came always to the same spot, the former to deposit his grinders, and the latter his tusks and skeleton! For what became of the parts not deposited there?

"We must agree, then, that these remains belong to each other; that they are of one and the same animal; that this was not a hippopotamus, because the hippopotamus had no tusks nor such a frame, and because the grinders differ in their size as well as in the number and form of their points." That it was not an elephant he thought ascertained by proofs equally decisive. "I will not avail myself (he says) of the authority of the celebrated anatomist, Mr. J. Hunter, who from an examination of the tusks has declared, they were essentially different form those of the elephant; because another anatomist, D'Aubenton, equally celebrated,

has declared on a like investigation that they are precisely the same.

"Between two such authorities I will suppose this circumstance as equivocal. But, *first*, the skeleton of the mammoth bespeaks an animal of five or six times the cubic volume of the elephant. *2dly*. The grinders are five times as large, are square, and the grinding surface studded with four or five rows of blunt points; whereas those of the elephant are broad and thin, and their grinding surface flat. *3dly*. I have never heard of an instance, and suppose there has been none, of the grinder of an elephant having been found in America. *4thly*. From the known temperature and constitution of the elephant, he could never have existed in those regions, where the remains of the mammoth have been found. The elephant is a native only of the torrid zone and its vicinities: if, with the assistance of warm apartments and warm clothing, he has been preserved in life in the temperate climates in Europe, it has only been for a short portion of what would have been his natural period; and no instance of his multiplication in them have ever been known. But no bones of the mammoth, as I

have before observed, have been ever found farther south than the salines of the Holston, and they have been found as far north as the arctic circle. Those, therefore, who are of opinion, that the elephant and mammoth are the same, must believe, 1*st*, that the elephant known to us can exist and multiply in the frozen zone; or, 2*dly*, that an internal fire may once have warmed those regions, and since abandoned them; of which, however, the globe exhibits no unequivocal indications: or, 3*dly*, that the obliquity of the ecliptic, when these elephants lived, was so great as to include within the tropics all those regions in which the bones are found: the tropics being, as is before observed, the natural limits of habitation for the elephant. But if it be admitted that this obliquity has really decreased, and we adopt the highest rate of decrease yet pretended, that is, of one minute in a century—to transfer the northern tropic to the arctic circle would carry the existence of these supposed elephants 250,000 years back; a period far beyond the conception of the duration of animal bones left exposed to the open air, as these are in many instances. Besides, though these regions would then be supposed within the tropics, yet their winters

would have been too severe for the sensibility of the elephant. They would have had, too, but one night and one day in the year; a circumstance to which we have no reason to suppose the nature of the elephant fitted. However, it has been demonstrated, that if a variation of the obliquity in the ecliptic takes place at all, it is vibratory, and never exceeds the limits of 9 degrees, which is not sufficient to bring these bones within the tropics.

"One of these hypotheses, or some other equally arbitrary and inadmissible to cautious philosophy, must be adopted, to support the opinion, that these are the bones of the elephant. For my own part, I find it easier to believe that an animal may have existed, resembling the elephant in its tusks and general anatomy, while his nature was in other respects extremely different. From the 30° of south latitude to the 30° of north, are nearly the limits which nature has fixed for the existence and multiplication of the elephant known to us. Proceeding thence northwardly to 36½°, we enter those assigned to the mammoth. The farther we advance north, the more the vestiges multiply, as far as the earth has been explored

in that direction ; and it is as probable as otherwise, that this progression continues to the pole itself, if land extend so far. The centre of the frozen zone, then, may be the acme of their vigour, as that of the torrid is to the elephant. Thus nature seems to have drawn a belt of separation between these two tremendous animals, the breadth of which belt, indeed, is not so precisely known, though at present we may suppose it about 6½ degrees of latitude; to have assigned to the elephant the regions south of these confines, and those north to the mammoth, founding the constitution of the one in extreme heat, and that of the other in the extreme of cold. When the Creator has therefore separated their nature as far as the extent of the scale of animal life allowed to this planet would permit, it seems perverse to declare it the same, from a partial resemblance of the tusks and bones. But to whatever animal we may ascribe these remains, it is certain, that such an one existed in America, and that it was the largest of all terrestrial beings of which any traces have been known to appear." Such are the conclusions of the ingenious author of "*Notes on Virginia.*"

Since the publication of the "*Notes*," however, many additional facts have occurred, which favor the assigning a *wider* range to this incognitum; for in cutting the Santre and Cowper River Canal in South Carolina, there was turned up a collection of bones, answering by description to those of the mammoth. Their number, variety, and arrangement were such, as entirely to prelude the idea of their having been carried thither as curiosities. The following letter, from the most respectable authority, extends this range still wider:—

"*Washington*, 1804.

"SIR,

"It is with some interest that I have learned from the Baron Hombaldt, who has been five years travelling through South America, that among other curious animal remains, h has discovered several specimens of the mammoth, perfectly distinguished by the great carnivorous teeth. He found them as far as latitude 33 south, but always on the highest mountains; which the baron takes to be satisfactory evidence, that this great unknown must have been the inhabitant of a cold climate. In North America, none of those bones have ever

been found, but in comparitively low situations; this is to be expected of an animal, which in a cold climate, would inhabit the valleys, and in a warm one would seek the cold retreats of the mountains.

" Yours, &c.

" R. P."

Had the opportunities of Mr. Jefferson been greater than it appears they were, or, in other words, had his materials been less scanty, he would not only have given a larger circle for the range of this animal, but he would have discerned the remains of a *Second Incognitum*, whose stature was not, perhaps, inferior to that of the other. These second remains evince a member of the herbivorous order, and, notwithstanding the extraordinary size, I have no hesitation in believing, that the animal was of the genus of the elephant; that he was the mammoth of the Russians, the mehemodi of the Arabians, and the behemoth of Job.

I conceive the word *behemoth* signifies *the beast*, by way of eminence, or the greatest among beasts.

The characters in the 40th chap. of Job, from the 16th verse to the end, appear highly applicable to a distinguished order of the elephant.

" Behold now behemoth, which I made with thee; he eateth grass as an ox."

The simile, *as an ox*, leads one to suppose some analogy in form. Accordingly the Romans called it *Bos Luca*, the Lucanian beeve; Lucania being that part of Italy into which Pyrrhus, in his war with the Romans brought them, and where the Romans first saw this creature.

" Lo now, his strength is in his loins, and his force in the navel of his belly.

" He moveth his tail like a cedar; the sinews of his thighs are wrapped together.

" His bones are as strong as pieces of brass; his bones are like bars of iron."

This description is too strong for any other animal than the elephant; no other can enter

into competition with him for the largeness and iron-like strength of his ribs, spine, and thigh bones.

" He is the chief of the ways of God's productions; he that made him can make his sword approach unto him.

" Surely the mountains bring him forth food where all the beasts of the field play."

Three characters of the behemoth are mentioned here. 1. He frequents the mountains. 2. The mountains supply him with food. 3. He is a gentle and sociable animal.

The elephant will graze freely with other animals, whether wild or tame. Among the latter, if they are near enough to be hurt by his sudden movement, he puts them gently by with his proboscis.

" He lieth under the shady trees, in the covert of the reeds, and fens.

" The shady trees cover him with their shadow; the willows of the brook compass him about."

These verses describe the behemoth's places of shelter and repose, and, in such places, in general, are his bones found in America at this day.

" Behold he drinketh up a river, and hasteth not; he trusteth that he can draw up Jordan into his mouth."

What is here said seems to convey a sublime idea of the lofty stature, great force, and intrepidity of the behemoth.

" Behold a river overfloweth, yet he maketh not haste; although Jordan break out against his mouth, he is in security."

I may remark in this passage, that the common height of the elephant is 10 ft. and a half. There were some in the stables of Coarees, King of Persia, twelve cubits high. A credible traveller, Sir T. Roe, assures us, that in Indostan he had seen some that were at least 12 ft. high, and was informed, that there were others 14 or 15 ft. in height. The elephant, therefore, can ford most rivers. The Jordan is here mentioned, not as frequented by ele-

phants, but only as put for any deep and violent river: for such the Jordan is in the time of its overflowing.

"He taketh it with his eyes; his nose pierceth through snares."

Job is here called upon, in the most humiliating irony, to try his courage on this large and powerful creature, to take him by open force, and guide him, when taken, with a cord, as he used to manage his camels.

"Let a man take him openly, let him draw a cord through his nose."

The second sentence alludes, I imagine, to the hair noose, or ring, which the Arabs put through the nose of their camels; and by which a line being fastened to it, they bring them to their beck.

The following version of Job's description appears too interesting to be disregarded. I trust you will agree with me in this opinion:—

Behold my behemoth, his bulk uprear,
Made by thy Maker, grazing like a steer.

What strength is seated in each brawny loin!
What muscles brace his amplitude of groin!
Huge like a cedar, see his tail arise;
Large nerves their meshes weave about his thighs;
His ribs are channels of unyielding brass,
His chine a bar of iron's harden'd mass:
My sovereign work; prime of the bestial kind,
In power of body, and in gifts of mind.
I, with a tusky falchion, armed his jaw,
His foe to humble and the desert awe:
In peaceful majesty of might he goes,
And on the mountain tops his forage mows;
Where beasts of ev'ry savage name resort,
And in wild gambols round his greatness sport.
In moory vales, beside the reedy pools,
Deep plunged in ooze, his glowing flanks he cools
Or in umbrageous groves enjoys repose,
Or bower'd in willows, where the torrent flows.
Not swelling rivers can his heart dismay,
He stalks secure along the wat'ry way.
Should Jordan heap his overflowing waves
Against his mouth, the foaming flood he braves.
Go now, thy courage on this creature try,
Dare the bold duel, meet his open eye,
Sublime on thy gigantic captive ride,
And, with a slender string, his vastness guide.

I now proceed to exhibit the parts which more decidedly mark the remains of the behemoth: they consist, *1st*, of grinders exclusively worn by animals of the herbivorous or gramini-

vorous kind; *2ndly*, of tusks differently fashioned; and *3rdly*, of bones of an extraordinary magnitude, belonging thereto.

Both the skeleton of the behemoth, and of the stupendous carnivorous incognitum on which I propose to treat in my next memoir, being frequently embedded in company, they have hitherto been confounded together by writers, under the single appellation of mammoth bones: though their appearance and character essentially differ, and distinctly point out two animals of the herbivorous and carnivorous kinds.

The teeth alone unquestionably bespeak this. The masticating surface of the mammoth tooth is flat, nearly smooth, and ribbed transversly, somewhat like the elephant's grinders, but less prominently marked. There are from 15 to 20 of these transverse lines on a single tooth of the mammoth; while, on that of the elephant, they seldom exceed half the number. The masticating surface of the tooth of the carnivorous incognitum is set with four or five high double-coned processes, or studs, strongly coated with enamel. But I refer this

latter subject to the following memoir; and now beg to recall your attention to what remains to be said on the wonderful subject of our recent speculations. That such an animal did exist in this country and in considerable numbers is certain. The benevolent persuasion, that no link in the chain of creation will ever be suffered to perish, has induced certain authors of distinguished merit, to provide a residence for the mammoth in the remote regions of the north. Some of the North American Indians also believe in the now-existence of this animal, and place him far beyond the Lakes. But their belief rests on mere tradition: for none of them will venture to declare they have seen the animal themselves, or that their information concerning him is drawn from any person who has seen him. The truth is, their tradition does not relate to the mammoth, though it very forcibly applies to the carnivorous incognitum to which I have so often reverted, and with which you will shortly become acquainted. There is considerable evidence, that the behemoth, or mammoth (which I shall in future call it, in compliance with custom) has not been in existence in America for several hundred years. There is no entire ske-

leton of so large an animal, *with herbivorous grinders*, extant; nor have I met with any of its bones in a state of preservation, but such as had been affected by salines and salt. The tusks and grinders alone remain: they in some degree resist the corrosion of time; though I lament to observe, that exposure to external air hastens them to a too sudden decay. The bones of this animal have never been found on the surface of the ground,—but sometimes 12 ft. underneath it,—and in one instance, below a lime-stone rock of immense solidity, which had *grown over them*, in the natural process of some thousand years!

For want of the evidence of the real herbivorous grinders, and in consequence of the inclemency of this hemisphere, Mr. Jefferson could not admit of the existence of an animal, of the genus and sensibility of the elephant, in America; nor could I, were I not firmly convinced from my own careful observations, and the remarks of a celebrated author, M. Volney, that the climate and face of nature is entirely changed. For there is no doubt, that the whole scope of country from above a range of mountains which cros« the

Ohio somewhere below the Falls, as high up as Pittsburgh and bordering Lake Eric, was once overwhelmed with water, forming an immense lake; that the summit of those hills was sufficiently high to do this; and that by some great convulsion of nature this barrier was rent to its base, and the waters being thus let loose, the lake above was drained, and the floods, entering from all parts of the higher to the lower grounds, formed the bed of the river now called Ohio. That this immense body of water was salt, appears evident from the immense quantity of coral every where to be found in the presumed bed of this lake; from the remains of submarine plants, fossils, and minerals; and from the bones and petrifactions of animals, which we know look for their appropriate aliment in the sea.

So great a change in the aspect of nature considerably influenced the climate, and, in proportion with its degeneracy, the mammoth pined and ultimately perished.

But admitting the assertion of that distinguished philosopher and statesman, Mr. Jefferson, that the sensibility of the elephant could

never have endured the inclemency of these regions, I will presume to touch the subject on a new ground, and allow it possible, that in consequence of some immense revolution in a more southern climate, the mammoth migrated into this, notwithstanding its being so inimical to his pursuits and affections. And where could this great revolution have happened? Perhaps on the very theatre of Mr. Jefferson's happiest visions,—when he says, "While ruminating on these subjects, I have often been hurried away by fancy, and led to imagine, that what is now the Bay of Mexico was once a campaign country, and that from the point, or cape of Florida there was a continued range of mountains through Cuba, Hispaniola, Porto Rico, Martinique, Guadaloupe, Barbadoes, and Trinidad, till it reached the coast of America, and formed the shores which bounded the ocean, and guarded the country behind; that by some convulsion, or shock of nature, the sea had broken through these mounds, and deluged that vast plain, till it reached the foot of the Andes; that being there heaped up by the trade winds, always blowing from one quarter, it had found its way back, as it continues to do, through the gulph, between Flo-

rida and Cuba, carrying with it the loam and sand it may have scoped from the country it had occupied; part of which it may have deposited on the shores of North America, and with part formed the banks of Newfoundland."

But I weary your attention: honor me with it, however, till we draw from matter so diffuse a few dialectical and useful conclusions.

I have endeavoured to prove, *first*, that bones found throughout America, and commonly called mammoth bones, are the remains of more than one species of non-descript animal; 2*dly*, that the real mammoth is a large order of the elephant according with the behemoth of Job; 3*dly*, that in consequence he is herbivorous, as manifested by his tusks and grinders;—4*thly*, that this climate was once congenial to his nature, though now so adverse to his pursuits and sensibilities;—5*thly*, that had the climate never suited his affections, still he might have migrated to this country, to avoid some shock of nature in his own; and 6*thly*, that the two last axioms lead to a conclusion, that this superb animal exists no more, or that he is only to be found in some of the remote

southern parts of the vast continent of America, yet unpenetrated and unseen.

It may now be asked, whether I have in this memoir, gratified the expectations of the public? Whether I have shed any light on a subject hitherto involved in gloom? And whether I have given all the information which your curiosity may demand, your reason suggest, or your fancy require? Too well convinced of the limits of the human understanding, and of the bounds set to my own, I dare not answer in the affirmative. Much may have escaped my observation and my research: being engaged in travel for several years, or living in parts destitute of books and improved associations, I was denied the assistance, drawn by other naturalists, from such materials, and was compelled to give you unembellished suggestions of my own mind—a mind injured by amalgamation with inhabitants of untutored wastes, where sensibility to grace is soon lost, where felicity of style cannot be gained, and where literary pursuits become at length forgotten!

To merit indulgence, I shall exert all my energies to give my next memoir the interest

you may consider absent from this. The subject matter will be,—the great *Megalonyx*, the monstrous lion of the Greeks; the cruel carnivorous animal of this western world, who was "huge as the frowning precipice; cruel as the bloody panther, swift as the descending eagle, and terrible as the angel of night!"

MEMOIR II.

I FEEL considerable encouragement to proceed in my views, both from the attention with which you distinguished me, and from a reasonable confidence that you are conscious of the difficulties so arduous an undertaking must be exposed to meet. You have the goodness to consider, that it is not with the sciences as it is with the arts. Aided by genius, a Titian or an Angelo, can at one flight reach the summit of his art; but whatever capacity you allow to a naturalist, still, in the wastes of science, he can only advance step by step. In his way he has absurdities to engage, and prejudices to conquer, which require faculties not always at command, and at a time perhaps otherwise to be employed. The principal obstructions which are to be met with in this investigation arise out of the variety of opinions which it has hitherto given birth to. It is necessary to review them.

Those stupendous remains, as I observed

in my first memoir, have been attributed to a giant; to the hippopotamus; to the elephant; to some carnivorous animal; and to some evil spirit, or devil.

This perversion must be owing to the neglect of natural history, or to the insufficient and mutilated evidence alone within the reach of those whose knowledge is contained in their closets, and who have never visited the haunts, or become acquainted with the passions, of the animals whose classification and properties they affect to give. Hence a tooth sent to Paris; a tusk to London, and some mixed fractions to Philadelphia, decide a different character; to which, however, indolence, and the terror attending active enquiry, have assigned the general name of mammoth.

Concerning the real origin of so terrific an animal as the megalonyx, various discordant, contradictory theories have been heard, equally repugnant to common sense, and the principles of sound philosophy. Concerning his early existence I may plead the general tradition of the most ancient nations, and of his present existence I feel unwillingness to doubt. There

appears to be an order in the proceedings of Omnipotence, as regards creation, which we should not break. What a beautiful gradation! In creation there are no chasms; all the parts of it are admirably connected, to make up one universal whole; there is one chain of beings, from the lowest to the highest. The scale of creation does not advance by leaps, but by gentle steps. One rises gradually above another; dead matter, unorganized earth, minerals, vegetables, insects, reptiles, birds, beasts, and man! The truth is, as observes the philosophic author of the "*Notes*," that a pigmy and a Patagonian, a mouse and a mammoth, derive their dimensions from the same nutritive juices. The difference of increment depends on circumstances unsearchable to beings with our capacities. Every race of animals seems to have received from their Maker certain laws of extension. Their elaborative organs were formed to produce this, while proper obstacles were opposed to its further progress. Below these limits they cannot fall; above them they cannot rise. What intermediate station they shall take may depend on soil, on climate, on food, and on a careful choice of breeders. Therefore we are neither to be astonished at the wide and

material difference in animal bulk, nor to encourage the theory of partial extinction: especially we may presume, that the wise Creator of every thing would not suffer so great a link in the chain as the megalonyx to be entirely broken off. He continues every created species, nor can they cease while the earth remaineth, any more than seed time and harvest, cold and heat, summer and winter, day and night.

But to proceed in the manner of my first memoir, I shall revert to the observations of others, before I intrude on you those of my own.

Stralenberg relates, that an entire skeleton of an incognitum was found in Siberia, near Lake Izana Osero; that it was 36 Russian ells long; and so great was the distance between the opposite ribs, that a man standing upright on the concavity of a rib, as the skeleton rested on its side, could not quite reach the opposite one, even with the aid of a pretty long battle axe, which he held in his hand. This account is given as coming from the mouth of the man himself, and who was one of thirty others all eye-witnesses of the fact. Dr. Misserschmidt

had seen the bones of a whole skeleton of a monstrous size, lying in a ditch between Tomskoi and Kasmtsko, on the banks of the river Tomber. Stralenberg also says, that he saw at the city of Tumeer, a skull 2½ ells in length, but this the Russians informed him was one of the smallest size. Muller and Isbrandes Ides go farther, and describe the colour, structure, &c. of some huge incognitum. But what credit can be given to such idle stories, when Ides himself confesses, that he knew of no person that had ever seen a living animal of such extraordinary magnitude?

The fathers of the ancient church thought it to be the devil, and others the elephant. The rabbins affirm, that it is the largest four-footed creature that God has ever created; that in the beginning he made two, the male and the female; the female he killed and salted, to reserve it as an entertainment for the elect, whenever the Messiah shall come; and that the male is still living, which, when this time comes, God will kill also, and give it to the Israelites, who shall then arise from the dead. As a proof of these extravagancies, they often swear by the share they expect in the "great beast."—

Such have been the efforts to deversify the same object: one sect considered it a leviathan of unwieldy bulk, spouting torrents of brine through its spiracles; while another butcher, and pack it in a tub.

It can answer no good purpose to follow this course any farther; and yet I entreat you to return with me to the Shawanece's tradition, notwithstanding my having observed that little faith could be put in it: traditions in general are so clouded with fable, as to obscure any truths they may happen to contain.

However clouded the sublime tradition of the Shawanece Indian may be with fiction, still my experience has discovered a considerable degree of truth to prevail in it. I early discovered, that the description pointed at some stupendous voracious animal; cruel, fleet, and capable of bounding suddenly on his prey. Furnished with carnivorous teeth to consume, and with claws to rend and destroy: in short, a monster of the tiger line, endowed with every bloody and malignant property, and differing in every character but bulk from the mammoth, whose qualities I so lately defined.

I also concluded, that the flat-surfaced grinders, the *defenses*, or tusks, belonged to one and the same animal, of the herbivorous order; and that the teeth, studded with high double-coned processes, would be found to belong to a carnivorous animal, armed with *claws:* in fact the nature of his pursuits would require them: of a form too unwieldly to range thro' the woods, he would have to lie in wait, and spring unexpectedly upon his prey. To effect this act, claws are necessary, and I believe it is a law of nature, that all carnivorous animals should possess them. Whereas tusks, *defenses*, or horns, would be incompatible with the pursuits of such a creature; would retard his progress through the woods, and gather too much wind when coursing his prey in the plains.

These opinions were considerably confirmed: the American philosophical society received a collection of bones here treated of, and among them, the *os calois*, or heel bones, of a clawed animal. This testimony, so flattering, so precious, and so ample to me, served as a subject of mere contention to others: a war ensued. Anatomists entered the lists; philosophers multiplied; and yet the question

remained undecided. The pride of man would not allow a single bone, one small bone, to beat down the edifice his errors had been so long erecting! The advocates of the hippopotamus; of the elephant; of the extraneous fossils; of any herbivorous animal, or of any aquatic one, became confounded, but not convinced. A species of commutation followed, and teeth, tusks, hoofs, and claws, were pitched together, to compose one animal. Not content with this arrangement, I abandoned the scene, and visited the regions where the object of dispute was said to abound; those plains he had once devastated; those lakes in which he had once slacked his thirst.—I soon discovered that I had chosen the proper theatre for the decision of the question.

Nature having blessed these transmontane regions with a bountiful supply of *salines*, or springs of salt water; the earth *there* being soft or spongy, and impregnated with mineral salts is rendered peculiarly fit for the reception and preservation of certain bodies, which, in other places, would undergo a speedy decay. Hence the profusion of large bones beyond the mountains, while on the Atlantic side of them, where

salines are scarce, such remains have but rarely been found. Between the Wabash and the Illinois, a considerable space of a plain is occupied with bones of all descriptions, some on the surface, and some beneath the ground. At a considerable distance back of St. Louis, in Upper Louisiana, there is a large parcel or body of both animal and human bones, mixed altogether promiscuously, over a space of ground of 300 yards, some lying, and others sticking up. Some of the largest order were presented to the Baron Carondolet, while in that country, who pronounced them to belong to an elephant.

Upon either margin of the Big-Bone-Lick, which is a shallow stream of salt water, in the state of Kentucky, flowing into the Ohio, there lies a stratum, extending a considerable distance, composed entirely of the bones of the buffalo, elk, deer, and other smaller animals, as alluded to in the Indian tradition, where it beautifully observes, "the groans of expiring animals were every where heard." But, judge of my surprize, when attentively examining the bones, I discovered, that almost every one of any length, had received a fracture, occa-

sioned, undoubtedly, by the teeth of some carnivorous animal, while in the act of feeding upon his prey. It is well known that the buffalo, deer, elk, and a variety of other animals, are in the constant habit of making such places their resort, in order to drink the salt water, and lick the impregnated earth. Now, may we not from these facts infer, that nature had formed some huge voracious animal, to whom she allotted the beasts of the forest for his food? How can we otherwise account for the numerous fractures that every where mark these strata of bones? May it not be inferred, too, that as the largest and swiftest quadrupeds were appointed for his food, he necessarily was endowed with great strength and activity? That, as the immense volume of the creature would unfit him for coursing after his prey through thickets and woods, nature had furnished him with the power of taking a mighty leap? That this power of springing to a great distance was requisite to the more effectual concealment of his bulky volume while lying in wait for his prey? Is not the Author of Existence wise and just in all his works? Would he confer appetites, and withhold the powers capable of obtaining their gratification?

With the agility and ferocity of the tiger; with a body of unequalled magnitude and strength; this monster must have been the terror of the forest, and of man! And—what monster?——It is true, carried away by an enthusiasm, inspired by the subject, I have not waited to tell you, that such a one did in fact exist. Filled with a strong conviction of his existence, I sought for evidence; I spared no labour; I dug all around, and at length drew from the reluctant earth the remains of a huge carnivorous animal, furnished with high-coned teeth, armed with claws. In fine, "huge as the frowning precipice, cruel as the bloody panther, swift as the descending eagle, and terrible as the angel of night," must have been this tremendous animal, when clothed with flesh and animated with principles of life!

The ruins of *a portion* of his head weigh nearly 200lbs. From the enamel of the teeth, fire can be struck! and the skull must have been 12 inches thick, forming a forehead 4 feet over!

The *scapula*, or shoulder blade, when seen in the earth, was large as a breakfast table; the

decay was too great; on moving it, it fell to pieces.

The *vertebræ* which are seen, shew the spinal marrow to have been 5 inches in diameter! Is not this extraordinary? Not seen, would the tale be credible?

The huge leg and thigh bones, how monstrous, how massive!——What muscles must have filled the inflexions—the wide and hollow insinuosities? And the fragments of ribs! how admirable their construction! Bent on the edge, they are eminently calculated for strengthening a frame ordained to subsist by the destruction of other animals, both active and powerful.

But, above all, I beg your attention to the claw. It is sheathed and retractile; denoting an animal of the lion kind. Justified by principles of anatomy I calculate, that, when extended on its prey, it must have been nearly 4 ft. long by 3 ft. wide, allowing that long and firm membranes interposed between the bones and toes.

There is a beautiful mechanism in the whole of this. The toes were drawn together, or bended, when the paw was bent: this was owing to the shortness of the tendons which pass over the toes, and from the toes being set in the circumference of a circle, as our fingers are. Therefore, when the paw was bent, the tendons would consequently be much stretched; and, since they are inserted into the toes, must of necessity have bent them when the foot was bent; and when the paw or foot was extended, the flexors would again relax, and allow the toes to become expanded,—to seize its prey, rend, and annihilate it.

From this rapid review of these majestic remains *it must appear, that the creature to whom they belonged was nearly* 60 *feet long, and* 2 *feet high!*

Being armed with claws, sheathed and retractile; having the powers, from the formation of his ribs, of extending and contracting his body to a great degree, in order to make more prodigious bounds; and appearing to be endowed with the passions and appetites of the

lion; I have ventured to distinguish him under that genus, and have called him the *Megalonyx*, after the Greek, which signifies the great lion.

However presumptuous this step may appear, I found it essential to take it; in order to avoid the vulgar error of calling it "mammoth," a term already bestowed on an animal of the elephantine species, as heretofore proved, and of the herbivorous nature. Besides, in a place which abounded with bones, I found it absolutely necessary to have some system of classification. For, in fact, I discovered remains of no less than *six* species of incognita; three of which I have not as yet defined. But would it be wise to blend them all together, and, to save the labour of investigation, to involve them all in the name of mammoth? In my first memoir I gave my motives for affixing this name to one particular animal, whose properties I described;—and in this, I give the name of *megalonyx* to another, whose capacities I shall further explain. In zoology, this name will, I imagine, class under *felis*, a genus of quadrupeds belonging to the order of *feræ*, the principal characters of which are these,—the fore teeth are equal, the molares,

or grinders, have three points; the tongue is furnished with rough sharp prickles, pointing backwards; and the claws are sheathed and retractile. This genus comprehends twenty two species, including the megalonyx.

It is said, that in warm countries quadrupeds are larger and stronger than in cold or temperate climates; that they are likewise more fierce and hardy: all their natural qualities corresponding with the ardour of the climate; that the lions nourished under the scorching sun of Africa, or the Indies, are strong, fierce, and terrible; and that those of Mount Atlas, whose top is sometimes covered with snow, are neither so strong nor so ferocious as those of Belledulgired or Zaara, whose plains are covered with burning sands. We have now, however, reason to doubt the justice of these observations, and to conceive, that other causes concur to inspire courage and repress vigour, than the influence of heat and cold. Do we not know—are we not convinced—that an animal of the lion's sensibilities, but far superior to him in magnitude, ferocity, and strength, was once the dread and scourge of all the western world! And what has become of him?

Satisfied of his *once* existing, this question becomes a profitable enquiry.

All noxious quadrupeds hasten to banishment, apparent extinction, or rapid decline. ——The Romans brought many more lions out of Libya, for their public shews, than are now to be found in that country. It is likewise remarked, that the lions in Turkey, Persia, and the Indies, are now much less numerous than formerly. As this formidable and courageous animal makes a prey of most other animals, and is himself a prey to none, this diminution in the number of the species can be owing to nothing but the increase in the number of mankind: for it must be acknowledged, that the strength of the lion is not a match for the dexterity and address of a Negro or a Hottentot, who will often dare to attack him face to face, and this too with very slight weapons. The ingenuity of mankind augments with their number; that of other animals continues always the same. All the noxious animals, therefore, are reduced to a small number, owing as well to the increase of mankind, as to the increase of ingenuity, which has invented weapons that nothing can resist.

These reasons apply to the fall of the megalonyx; with this addition, that as he was so terrific and devastating a disturber, the human race might have made his extirpation a common cause; or his numerous and powerful enemies of the forests might have operated to this effect. There is no question, but that the mammoth was his perpetual rival, and avowed adversary. Wherever they met, they fought; and wherever they fought, one or both fell. Their bones, to this day, are found mingled together on the same surface, or buried deep in the same hole. I hardly know an instance of their being found separately, and where they are so, they have most probably been dragged into such situations by creatures, who dreaded to approach them while alive. But how long the megalonyx has existed, or ceased to exist, in America, we shall perhaps ever remain in ignorance of. No judgment can be formed from the quantity of vegetable soil which has accumulated over his bones. Certain we are, that his species existed in great abundance, from the number of their remains. Perhaps they were destroyed by some sudden and powerful cause,—probably one of those changes, or sudden eruptions of the sea, which

have left their traces in every part of the globe; and which are in amazing abundance on the very spot where these bones are found. They consist of petrefactions of sea productions, shells, corals, &c. It is probable, too, that whenever, and by whatever means, the extirpation of this tremendous race of animals was effected, the same cause operated in the destruction of all those inhabitants, from whom we might have received some satisfactory account of them.

Whether the race is extinct, or whether, as the Indians allege, it still exists beyond the lakes, remains, then, undecided. I am reluctant to think that so grand a monument of All-creative Power would be allowed to be effectually and entirely destroyed! And yet a conclusion may be drawn in favour of its annihilation. The scriptures tell us, that "in the beginning, to man was given the dominion over the fish of the sea, over the fowls of the air, and over every living thing that moved upon the earth." Could the present race of man govern the Megalonyx, supposing he existed in the abundance we are authorised to conceive he did? Certainly not. Therefore, to fulfil an

ordinance in favour of mankind, the race might have been destroyed.

Or, perhaps there has been in this tyrannic animal's day a race of people who had as complete a dominion over that astonishing being, as the present race have over the animals of the present time! If so, what ideas can we have of them? And "how have the mighty fallen!" Here language fails; and man, poor short-sighted man, is lost in clouds of amazement and uncertainty: while, like the poet, we must

> Once more search, undismay'd, the dark profound,
> Where Nature works in secret; view the beds
> Of mineral treasure, and the eternal vault
> That bounds the hoary ocean; trace the forms
> Of atoms, moving with incessant change,
> Their elemental round; behold the seeds
> Of being and the energy of life,
> Kindling the mass with ever-active flame:
> Then to the secrets of the working mind
> Attentive turn; from dim oblivion call
> Her fleet, ideal, band; and bid them 'go
> Break thro' Time's barrier, and o'ertake the hour
> That saw the heav'ns created; then declare
> If ought were ever found in those external scenes
> To move thy wonder now!' For what are all
> The forms which brute, unconscious matter wears,
> Greatness of bulk, or symmetry of parts!

I did not wish to break the train of my own arguments, by introducing the opinions of those, whom I know to be adverse to mine. A love of truth, however, and a desire to give all the information within my means, lead me to notice those opinions.

Bishop Maddison, a gentleman of research and distinguished information, affirms, that the incognitum with the studded grinders is an animal of the herbivorous order. Permit me to give his own reasonings.

"Among rude nations, ignorance and credulity have eagerly embraced and perpetuated extravagant tales, respecting the mammoth. The Siberians assert, that it lives under ground; and the North-west Indians have hurled against it the thunder-bolts of the Great Spirit, so as to make the monster spring over the Wabash, the Illinois, and the Great Lake, where he is now confined! In the scientific world, two dissimilar principles, scepticism, and the bold spirit of conjecture and system, have produced mistakes, perhaps no less extraordinary. At first, the remains alluded to were, by some naturalists, attributed to the elephant, whilst

others advocated a just claim of the hippopotamus to the same. When, in process of time, the light, thrown on the subject by comparative anatomy, determined that they must have belonged to a non-descript animal, distinct from either,—a doubtful point still existed, and invited the attention of the inquisitive.—"Was that animal carnivorous or herbivorous?" Each side of the question long boasted illustrious supporters. Dr. Hunter declared the unknown animal, *carnivorous*. His opinion became mostly prevalent. By some, however, who were unwilling entirely to abandon a favourite idea, it was contended, that he was an animal of the *mixed kind;* that is, capable, like man, like the monkey, the hog, &c. of feeding both upon flesh and upon vegetable substances. But most adopted Hunter's idea, without any modification, and declared the animal positively and exclusively carnivorous. After the decision of this point, curiosity and investigation were excited by another topic of enquiry. This was, to ascertain the element on which he lived in general. Some considered it a *terrestrial* animal; others, from certain indications in its structure, pronounced it *amphibious*, and consigned to it shell-fish, as its favourite food."

The fact contained in the following communication strongly, we might say victoriously, militates against the carnivorous doctrine.—— And facts, says Bishop Maddison, summon the discordant opinions of philosophers before an unerring tribunal, from which there can be no appeal:—

"The question, whether the incognitum was a carnivorous or an herbivorous animal, has long divided naturalists: ingenuity, supported by analogy, afforded specious arguments for either opinion. One fact, which the bosom of nature had concealed, but which human industry has brought to light, has removed every doubt. In digging a well, in a place which afforded indications of marine salt, a passage was made through the contents of the stomach of a vast animal! The novelty of the substances, thus found, excited attention. They were carefully examined, and seemed to be half masticated reeds, and twigs of trees, with grass; whilst the bones of the beast, which were dug up at the same time, and which lay contiguous to these substances, evinced, that they had been the contents of the animal. These contents are in a state of high

preservation; have been seen by hundreds; and were found, together with the bones, resting on a limestone rock, about 5½ feet below the ground, in the county of Wythe, in Virginia. A part of the contents, with the whole skeleton, are to be forwarded to William and Mary College."

There is a rational scepticism, justly recommended by the great Bacon to the lovers of knowledge. Philosophical doubt ought to be carried into every department of science. Repeated experiments, accumulated facts, long and attentive observations, can alone imprint on our theories the sacred seal of truth, and establish our opinions on a permanent basis. And surely you will agree with me, that, according to these remarks, finding a few crushed vegetable substances blended with bones of an animal, is not a sufficient criterion for the discovery of his properties and affections. Besides, a variety of circumstances might have concurred to place the supposed contents of the stomach in the situation they were found. An expiring animal of ferocity and force might have torn and masticated every substance within his reach; —or the matter collected by Bishop Maddison

might have been the contents of the stomach of an herbivorous animal, the carcase of which might have lain under the body of the carnivorous creature with whom it fought, and with whom it fell. For there is no doubt, but that a fixed and perpetual enmity reigned between the mammoth and the megalonyx. Their remains evince this; they are constantly found together; and as we are sufficiently convinced that their pursuits and sensibilities differed, we must ascribe this present union to their former hatred and animosity. I am asked, how it happens, that where the bones of both animals have been embedded together, those of the megalonyx alone principally are found, while those of the mammoth are scarcely discernible? The answer is plain. The bones of all herbivorous animals are, from their nature, subject to decay infinitely sooner than the bones of carnivorous creatures, which are more durable and capable of resistance. Hence, where the mammoth and megalonyx expire together, the bones of the latter may be found entire, and none of the former but its tusks;—which being made of ivory, bid equal defiance to the attacks of time.

Therefore, on the whole, we cannot agree to consider an animal, endowed with carnivorous grinders, to be herbivorous, on the mere ground, that mashed vegetable substances were found in the vicinity of his bones! It would be catching at straws, to support a theory, to me entirely inadmissible. I could prefer meeting the doctrine of those who suppose the animals of a mixed nature; though I have no intention to abandon my own, that he is carnivorous, and unmixed. It is true, notwithstanding, that the lower jaw is furnished with but four teeth, two on each side; and being unassociated either with *incisores* or *canine*, it might be inferred, that his nature was not wholly carnivorous, but mixed;—and that a being, whose existence would require such an immoderate quantity of animal food, might, under circumstances of necessity, be indued with the faculty of subsisting on vegetable substances. As the idea is not unreasonable, I shall not oppose it, though I am far from being of the belief myself.

I shall also be accused of placing an animal of such extreme volume under the genus of

the lion, whose bulk is comparatively small. But is not the diminutive domestic cat of the lion species? May not the lion's race soar as much above, as this degenerate creature sinks beneath, him? Or why is it, that the human mind will admit of mean and contemptible associations, and reject those that are sublime and grand? Are there not a mini, and a whale; a humming bird, and a cassawary; a mouse, and a mammoth; a dwarf, and a giant? Yes. On the same principle, then, we admit a cat, and a megalonyx. It is not the *size* which determines the genus, but the qualities, pursuits, and affections. The size varies more considerably in the lion, than in any other species.—M. de la Landemagon assures us, that he has seen a tiger, in the East Indies, 15 feet long, including, undoubtedly, the length of the tail, which, supposing it to be four feet, makes the body of the tiger eleven feet in length!

A skeleton, preserved in the cabinet of a French King, indicates, that the animal was 7 feet long, from the point of the muzzle to the origin of the tail; and it must be considered, that he was caught young, and lived in confinement all his days.

There is in some parts of India a popular notion, that the rhinoceros and the tiger were in friendship, because they are found near each other. In America the bones of the rhinoceros and megalonyx are in the same vicinity: but I do not attribute this to any former friendship that existed between them. The truth is, the rhinoceros loves to wallow in the mire, and, on that account, frequents salines and the banks of rivers: the megalonyx, to quench his thirst, or find his prey, remained contiguous to the same places.

Nor do I stand alone in the opinion, that animals of the lion race have inhabited America; and though M. Buffon even denies the panther to belong to that country, Mr. Pennant thinks, that the same, or a variety at least, inhabits it. The figure of the species described by Faber, under the name of *tigris Mexicana*, agrees exactly with that of the panther, as does also the description in general. M. Condamini, and Le Pere Cattano, speak of the tigers of America as equal and even superior in size to those of Africa, and the colour as bright as gold; and Ulloa describes them as big as a horse! Notwithstanding the venders of furs

cannot be depended upon, as to the countries their goods come from, yet the general opinion of the whole trade, that these skins were the produce of Spanish America, is a further proof of their being common to both continents.

From the remains, then, before us; from all the foregoing remarks; and, above all, from the conviction that the megalonyx is of the lion kind, let us form to ourselves some idea of his character.

His length 60 ft. his height 25; his figure magnificent; his looks determined; his gait stately; his voice tremendous! In a word, his body must have been the best model of deadly strength, joined to the greatest agility. And, from the force expressed by the visible seat of his muscles, his bounds must have been prodigious, enabling him to fall upon his prey, to seize it with his teeth; tear it with his claws, and devour it. Accustomed to measure his strength with that of all other animals he used to encounter, the habit of conquering must have rendered him haughty and intrepid!

Having, perhaps, never experienced the

strength of man, or the power of his arms, instead of discovering any signs of fear, he would disdain and set an army at defiance! Wounds might irritate, but they could not terrify him; and after a violent and obstinate engagement, should he find himself weakened, he would retreat fighting, always keeping his face to the enemy, looking proud, great, and ferocious.

THE END.

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